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ABSTRACT

This study describes the educational system and discusses major educational trends and problems in elementary, secondary, higher, agricultural, and vocational education of four major French speaking West African countries since their achievement of independence. One major problem considered is that rapid expansion of educational opportunity in terms of existing formal systems cannot be maintained in the 1970's because of limited resources, yet popular demand puts pressure on expansion since less than 50% of each age group attends school. Further, the existing formal education systems are not adapted to the needs of rural development--which is essential to economic development. A challenge for the 70's is to produce and implement new strategies for education. The book is divided into six main sections. Education during the Colonial era from 1870 through 1960 is discussed in the first section. The next four sections present Republic characteristics, describe the education systems at all levels, including information on vocational and agricultural education, and explain educational expenditures of the four mainly agricultural Republics of Guinea, Mali, Senegal, and the Ivory Coast. The last section compares major characteristics of the educational system during the first decade of Independence and derives generalizations concerning common trends and problems.
(Author/SJM)

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EDUCATIONAL DEVELOPMENT IN GUINEA, MALI, SENEGAL, AND IVORY COAST

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / Office of Education

Highlights

- Four former French colonies which became independent in 1958 (Guinea) or 1960 (Ivory Coast, Mali, Senegal) are basically agricultural. Industrialization has progressed vigorously only in Ivory Coast, which has an estimated per capita income of $245 and one of the fastest economic growth rates in Africa. Each of the countries has an estimated total population of less than 5 million but an annual population growth rate usually estimated between 2 and 3 percent.
- In the midsixties, all four countries were spending a significant portion of the gross domestic product (GDP) upon educational development. External assistance was substantial for all of them.
- Official statements give a key to the differences in educational objectives among the four countries. The differences in emphasis can perhaps be seen best in the references to education in Guinea—and in Mali in the past—as a factor of revolution, and in Senegal and Ivory Coast as a factor of evolution.
- Activities to adapt the content and/or structure of the inherited educational systems to local needs, including rural development, are current in all four countries. Guinea and Mali altered the structures of their systems in the early 1960's and Senegal and Ivory Coast are likely soon to modify theirs; they are attempting to develop an elementary system that can in the foreseeable future become universal. Guinea, Senegal, and Ivory Coast have either initiated or experimented with terminal lower secondary education emphasizing practical skills used in rural areas.
- Enrollment increase from 1952–53 to 1967–68 varied for the four countries for each level as follows: *elementary*—500 to 1,200 percent; *general secondary*—2,000 to 9,000 percent; and *vocational*—11 to 1,700 percent.
- Estimates of the percentage of elementary- and secondary-level age groups in school for 1966 are as follows: Guinea—30.0; Ivory Coast—40.0; Mali—15.0; Senegal—30.0. Educational opportunities vary considerably by region within each of the countries.
- An imbalance between elementary enrollments and the much smaller enrollments at the secondary level has continued, and studies of student flow through the various systems indicate that both the elementary and and secondary levels are inefficient. A high percentage of students drop out of school or repeat grades.

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EDUCATIONAL DEVELOPMENT IN GUINEA, MALI, SENEGAL, AND IVORY COAST

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UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL
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Foreword

This study describes the educational system and discusses major educational trends and problems in each of four major French-speaking West African countries since they achieved their independence (Guinea in 1958; Mali, Senegal, and Ivory Coast in 1960). A concluding chapter presents some comparisons between and among the four countries. The study fills an important gap in the comparative educational literature readily available to Americans and others interested in recent educational developments in these four countries.

The U.S. Office of Education has published many studies on education in foreign countries, including the following on sub-Saharan African countries: *Education for Africans in Tanganyika,* the country that merged with the former Zanzibar in 1964 to form the new nation of Tanzania; *Education in Uganda; Educational Developments in the Congo (Leopoldville)*, the country now known as Zaire; and *Education in the Republic of Kenya.*

The author of the present report, Jerry B. Bolibaugh, holds a doctorate from Stanford University, where he specialized in comparative education and philosophy. His doctoral dissertation was a study of France's colonial educational policy in Africa. Dr. Bolibaugh served the U.S. Agency for International Development from 1963 to 1966, first as general education advisor in Mali and then as higher education advisor in Tunisia. He later returned to West Africa to gather information for this study. Currently he is a senior officer of UNESCO's Division of Educational Financing.

The Office of Education and the author wish to thank officials of Guinea, Mali, Senegal, and Ivory Coast and officials of the French Government and UNESCO for their assistance in facilitating the author's research.

ROBERT LEESTMA
Associate Commissioner for
International Education

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Introduction

The French had contact with the West African coast as early as the 14th century and established a permanent trading post at the mouth of the Senegal River near the end of the 16th century. Subsequently they developed a few other trading posts south along the Guinea coast. Until the middle of the 19th century, French influence in West Africa was largely confined to these coastal areas.

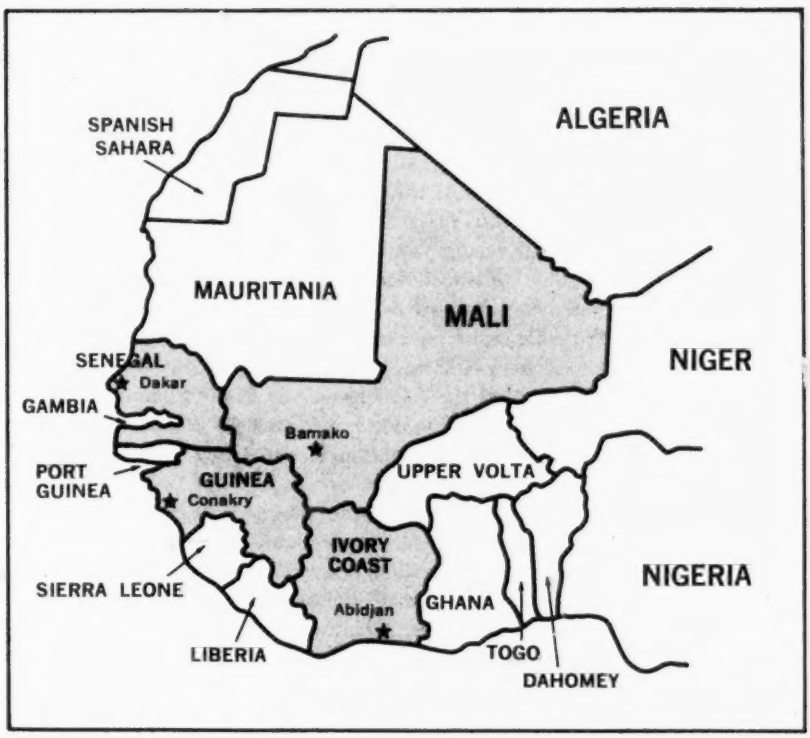
By the end of the 19th century, France had established complete control over large areas of West Africa. Her colonies in West Africa, including Guinea, Soudan (Mali), Senegal, and Ivory Coast were subsequently administered as part of the Federation of French West Africa.

Before the end of World War II the 1944 Brazzaville Conference of Free French officials made recommendations for a new colonial policy for sub-Saharan Africa. These included the establishment of a federal parliament and an increased indigenous role in local policymaking. Under the Fourth Republic the colonies became territories within the French Union. African "subjects" were granted French citizenship. Africans were elected to the French Parliament and the Assembly of the French Union, as well as to councils within Africa. The latter held mainly advisory powers; French governors remained the supreme local authorities, and legislation was enacted, as before, in France.

In 1956 the French parliament passed the famous Loi Cadre (enabling law) which soon led to a major revision of the political structure of French sub-Saharan Africa. The Federation of French West Africa was dissolved and designated a group of territories to symbolize the fact that the territories had become semiresponsible, separate governments. The former advisory territorial councils became territorial assemblies which were elected under universal adult suffrage and which had legislative powers. The French governors—retitled heads of territories—lost much of their power to an executive council chosen by each territorial assembly.

In the September 1958 referendum on the constitution for the Fifth French Republic, West African voters were given the choice of immediate independence or of autonomy and partnership in the new French Community. Only Guinea voted for immediate independence and proclaimed its independence the following month. After the referendum, Soudan, Senegal, and Ivory Coast became internally autonomous member states of the French Community. Early in 1959 Soudan and Senegal formed the Mali Federation.

Soudan, Senegal, and Ivory Coast became fully independent states in 1960. The Mali Federation achieved its independence within the Community in June 1960. Senegal seceded and the Federation broke up in August 1960. The following month Soudan proclaimed itself the Republic of Mali and withdrew from the Community. Ivory Coast had become independent in August 1960 and also withdrew from the Community.



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GUINEA, MALI, SENEGAL, AND IVORY COAST: 1969

I. Education During the Colonial Era

THE THREE PERIODS

Educational development in Guinea, Mali, Senegal, and Ivory Coast during the colonial era may be divided into three periods based upon significant shifts in French educational policy.[1] The first period, from 1815 to 1870, began with a development plan for Senegal and concluded with the Franco-Prussian War. This 55-year span was characterized by shifting policies for French West Africa, and by concentration of French attention upon one colony, Senegal. Formal education was limited to Senegal except for the activities of a few missionaries along the coast to the south.

The second period covered the life of the Third French Republic, beginning in 1870 and concluding in 1944 with the Brazzaville Conference. This 74-year period witnessed development of a permanent French colonial administration, popularization of colonialism within the Metropole,[2] and establishment of a comprehensive educational plan for West Africa based upon clearly defined objectives. Significant growth of the educational system was limited, however, to the last 20 years of the period.

The third period, from 1944 to 1958 for Guinea, and from 1944 to 1960 for Mali, Senegal, and Ivory Coast, marked the rise of the African elite to the metropolitan policymaking level and the African demand for equality with the Metropole in all fields, including education.

THE FIRST PERIOD: 1815-70

Development Plan for Senegal: 1815

Prepared in 1815 and forwarded to the Governor of Senegal for implementation in the spring of 1816, the development plan called for the agricultural and mineral development of Senegal. The plan's social strategy was to change the customs and mentality of the indigenous population through economic development and also through extensive Chris-

[1] Jerry B. Bolibaugh and Paul R. Hanna. *French Educational Strategies for Sub-Saharan Africa; Their Intent, Derivation, and Development.* Stanford, Calif.: Comparative Education Center, Stanford University, 1964.

[2] The term "Metropole" refers to continental France as distinguished from overseas France.

tian evangelization. Then, after the change was partially accomplished, the Africans were to receive some elementary education.

In 1818, after warnings by the Governor that extensive Christian evangelization would result in a serious confrontation with Islam (the major religion of Senegal), the French Government modified its social strategy and gave top priority to providing elementary education and economic development. The Metropolitan Government anticipated no formidable problems in developing education in Senegal rapidly, for it planned to use the "monitorial system," a new low-cost educational system in which teachers use the best pupils as monitors to help teach the less advanced pupils. The Government also instituted a teacher recruitment and personnel policy.

Proposals To Use Wolof as the Language of Instruction: 1822, 1826

In 1822 and again in 1826, a plan was proposed (and rejected) to accelerate educational development in Senegal by using the indigenous language as the medium of instruction at the elementary level and by relying upon Africans to found schools and serve as instructors in the interior. An initial phase was to establish secondary education largely devoted to training teachers and to developing textbooks in Wolof (based upon Wolof vocabulary and grammar books published in France in 1825 and 1826).

Reform of Native Education: 1835

A metropolitan investigation in 1828 reported that a major task of local colonization lay in eradicating cultural-linguistic differences and suggested that this might be accomplished by producing annually an assimilated young indigenous elite who would gradually carry the French language and way of life to the interior. In 1829 a commission recommended a plan to implement this suggestion, which was incorporated into the 1835 reform of native education. The reform instituted French as the language of instruction, making African education dependent on metropolitan teachers. In 1837, the scarcity and instability of lay personnel led the Metropolitan Government to contract for personnel with a religious teaching order, the Brothers of Ploermel. In 1842, the local head of the Roman Catholic Church, Father Maynard, was named to supervise the educational system.

A Proposal for Vocationally Oriented Education: 1844

In 1844 Father Maynard, in his first comprehensive report on native education, proposed a major shift from intellectually oriented academic education to morally oriented vocational education. He proposed a two-track system in which the best pupils would receive practical arithmetic and geometry in order to prepare them for river and coastal navigation and for management of the interior trading posts; the other pupils would receive apprenticeship training based upon native industries to be developed by the Government. Under the latter program, the Government

would set up manual arts workshops and establish a model working community as a training ground for neighboring tribes. Father Maynard's report was not acted upon by the French Government, but it deserves mention because of its unique features and early date.

An Experiment with Classical Secondary Education: 1842–49

In 1842 three Senegalese, ordained as priests in France, returned to Senegal to establish a metropolitan-type secondary school. The main subject was Latin, and the first class was composed of 30 students, the best from the elementary school. This new school paralyzed the elementary school, which had used the best pupils as monitors (or assistant teachers). A feud between the elementary and secondary school teachers ensued, with the local government backing the priests and the secondary school and the Metropolitan Government backing the elementary school as more relevant to development needs. In 1849, the local government, under pressure from the Metropole and after a review of the unsuccessful postgraduate history of 10 students sent to France, withdrew its support from the secondary school and it closed.

Status of Education: 1850–54

Despite the various decrees and plans (including a decree in May 1848 calling for free compulsory elementary schools), educational development lagged in Senegal. The elementary school run by the Brothers of Ploermel had fallen into difficulty because of a severe personnel shortage; the vocational-training plan remained on paper only; and the priests' secondary school had been closed.

The main school of French West Africa, the Saint-Louis elementary school, by June 1851 had 100 pupils organized into 4 grades. Administered by Roman Catholic clergy, the school had a curriculum dominated by religious and language arts instruction, with French grammar emphasized in all but the 1st grade. In the 4th grade, the pupils received not only a comprehensive catechism and grammar, but also algebra, arithmetic, cursive and Gothic writing, geography, geometry, the history of Christianity and of France, and Latin reading.

Pupil achievement was reported poor. Most pupils performed adequately only in handwriting, although a small number showed promise in arithmetic. Nevertheless, a request for the reestablishment of secondary education or for the addition of a humanities class to the elementary school was forwarded to Paris in 1851. The French Government provided a humanities teacher, and by 1854 a total of 12 to 16 pupils were reported progressing satisfactorily in the study of Greek.

By the end of 1854, official French schools in Senegal numbered four, with approximately 590 pupils. Elsewhere in French West Africa, formal education remained virtually nonexistent. A few missionaries were teaching children in areas scattered along the coast southward to Gabon; and a small number of chiefs' sons from Ivory Coast had been sent to France

to be educated. In general, however, the future of all settlements south of Senegal was too undecided for the Metropole to make substantial investments in education.

Educational Development Under Governor Faidherbe: 1852–65

For 13 years under Napoleon III (1850–70), Governor Faidherbe extended French influence in the colonies through military means while making peace and prosperity possible through his liberal convictions and empathy with the Africans. Agricultural production, commerce, communication facilities, and transportation were significantly expanded. In 1862 the important port of Dakar was founded in Senegal.

Faidherbe viewed education as a basic means of colonizing. Although this view was not new, Faidherbe's vigorous attention to the problem made his educational efforts effective. He had studied the indigenous customs and developed an unusual command of two of the important languages, Wolof and Peuhl.

Faidherbe believed that as long as the formal system of education remained a Christian monopoly in a predominantly Moslem country, the natives would resist it and thus a basic means of colonizing would be lost. Almost immediately after becoming Governor, he initiated a lay school system with the military serving as instructors. Special efforts were made to assure the Moslems of the nonreligious nature of the system.

A few months before the appointment of Faidherbe as Governor, the Brothers of Ploermel had requested that the sons of chiefs, who were serving as hostages, be removed from their school. They described the chiefs' sons as undisciplined and rebellious to conversion. In 1856, Faidherbe established a lay boarding school for these students, the famous School of Hostages at Saint-Louis. This school was part of a plan to train an African elite to second the administration and to extend French influence.

To establish communication with the African mass, Faidherbe initiated controls over the informal but extensive Koranic (Moslem) schools by requiring that the teachers have government permits and the students attend evening French-language classes. In addition, Franco-Moslem schools were developed which added instruction in the French language to the traditional religious and Arabic curriculum.

By 1860, the school population of the capital, Saint-Louis, numbered 860 pupils (exclusive of those attending the obligatory evening classes). By 1864, public schools outnumbered religious ones.

Despite the unprecedented era of colonial prosperity, French public opinion in the colony became increasingly hostile to the liberal and creative Governor. Never popular with Napoleon III, who considered him a utopian radical, Faidherbe resigned in 1865 because of the loss of local and metropolitan support.

THE SECOND PERIOD: 1870-1944 [a]

Colonial affairs were in a state of vegetation during the first 9 years of the Third Republic (1870–1940) because of a political struggle between the Royalists and the Republicans in France and public antagonism towards the colonies for their lack of assistance to France during the War of 1870. However, a small but powerful group of procolonialists, composed of civil servants, intellectuals, military men, and politicians, waged a persistent procolonial campaign which was aided by a grassroots nationalism (growing out of the French defeat). When the Republicans emerged as the dominant political force in 1879, colonial expansion began anew.

Status of Education by 1900

The period from 1870 to 1900 saw the opening of a number of new schools but limited enrollment expansion. In Senegal, enrollments increased from about a thousand students in 1860 to about 2,200 in 1898.

In Soudan (which then included not only present-day Mali but also sections of Upper Volta and Ivory Coast), a few schools were opened by the military from 1882 on. At about the same time, missionaries opened four schools along the Niger river. By 1900 there were more than 30 schools in Soudan with about 800 students.

In Ivory Coast, although a few sons of chiefs had been sent to France to be educated in the middle of the 19th century and sporadic efforts to maintain classes in Ivory Coast occurred prior to 1887, that date is identified frequently as the year when formal education was introduced in Ivory Coast. By 1900 there were seven schools for boys and one for girls operated by missionaries, five rural schools, and an apprenticeship center with enrollments totaling over 900 students.

Guinea, the least favored colony in terms of educational opportunity, by 1900 had a total enrollment of under 400 students.

Thus, at the turn of the century, the four colonies had combined enrollments of approximately 4,300 students. This number, which may appear small for a development period of 85 years, should be considered in the historical context of the problems in France and the relatively gradual extension of French control in West Africa.

The Principle of Colonial Financial Self-Sufficiency

Colonial expansion rendered the problem of overseas expenditures so acute that the French Government by the turn of the century had established a definitive policy regarding them. Under this policy of colonial financial self-sufficiency, the colonies became responsible for all internal civil and security expenses and also contributed to metropolitan costs of administering colonial affairs. A vicious-circle situation emerged, with

[a] Except where noted, the quantitative data in this section are from: France, La Documentation Française. *L'Enseignement dans les territoires d'outre-mer et territoires associés*, Notes et études documentaires. No. 1.896. July 19, 1954. pp. 12–14.

socioeconomic development dependent upon local revenue and local revenue dependent upon socioeconomic development.

Pressures for Educational Change

The Alliance Française.—Dissatisfaction with official efforts to develop French overseas education led to the organization in 1883 of the Alliance Française. With the objective of propagating the French language and culture on a worldwide basis, the Alliance by 1889 had attracted 15,000 members. Eventually it was absorbed by the state as an official agency, and today it functions under the Ministry of Foreign Affairs (still with its original objective).

As an independent association, the Alliance reinforced French Government activities in the colonies and also worked in foreign lands and territories where the Government could not. The Alliance supported both the Government and mission schools in French West Africa and, in turn, the Government encouraged the efforts of the Alliance to open schools in the interior. Despite this cooperation, the Alliance often tried to push the Government to exert greater efforts in colonial education. For example, it criticized the fact that the hundred scholarships maintained by the General Council of Senegal for study in France went mainly to children of the French administrators, including those of General Council members.

The Mission Laïque Française.—Born in 1902 of the anticlerical attitude prevalent in France (which culminated in the parliamentary measure separating church and state in 1905), the Mission Laïque Française included members who were leaders of the Alliance Française. Its aim was to secularize French overseas schools.

Pressures upon the Metropolitan Government resulted in a 1903 legislative resolution calling upon the Minister of Colonies to secularize the schools of all colonies, and before the year was out, comprehensive plans to this effect were officially enacted in French West Africa, when two ordinances organizing West African public education were passed.

Ordinances Organizing Public Education: 1903

Two ordinances dated November 24, 1903, set forth a new public education system of four levels or types, divided into two tracks—one for Africans and one for French and selected assimilated Africans and mulattoes. Since education was separated by sex, the ordinances provided for a parallel system for girls, although its development remained more of a local option. Thus, educational opportunity was largely limited to boys with the exception of French and selected assimilated girls.

Elementary schools.—The African track at the elementary level included the rural village schools and the regional schools, situated at district administrative centers and other important towns. In the village schools Africans served as teachers; in the largest ones, a Frenchman served as principal. The curriculum included an initial emphasis on conversational French leading to reading, writing, and arithmetic in French,

the language of instruction. Agricultural concepts and terminology were emphasized in the program.

Regional elementary schools had both African and French teachers and French principals. They accepted both pupils from the immediate locality and the best pupils from rural village schools. Emphasizing a more formal study of French, the regional schools offered French history, particularly as it related to West Africa, and an introduction to physical and natural sciences that included information concerning local agriculture and industry.

The elementary school of the second track consisted of urban schools in all towns having a sufficient French or assimilated African population to justify the expense. Teachers were European and the curriculum similar to that of the Metropole. Some of the urban schools in colonies other than Senegal maintained special continuing courses for local French elementary school graduates. Apart from these courses, all schools above the elementary level were located in Senegal.

Vocational schools.—Elementary vocational schools constituted a special section of the regional schools if workshops were available. Above the elementary level, the Pinet-Laprade School at Dakar (Senegal) served all of the French West African colonies, producing skilled craftsmen in metalwork, stonework, and woodwork.

Lower secondary and commercial schools.—The Faidherbe School in Saint-Louis (Senegal) offered lower secondary academic and commercial education. A student first took a 1-year general education course and then followed one of three specialized programs. The commercial program and the administrative program (the African track) prepared indigenous students for civil service positions; the academic program (the French track) of academic lower secondary studies prepared French students for the upper grades of metropolitan secondary schools. A student entered the academic program after passing a special examination before a committee of teachers headed by the Chief of Education for West Africa. The curriculum included Latin, Greek, history, and geography. The teachers were French.

Teacher-training schools.—An upper secondary normal school at Saint-Louis prepared African elementary school teachers for French West Africa and offered courses for interpreters, Moslem magistrates, and chiefs. The teacher-training program was similar to that of the Metropole except for local modifications. After student-teaching in the Saint-Louis schools, the teacher-candidates served as assistant teachers in regional schools for 1 year before being assigned to a rural village school.

Impact of World War I

The important role played by colonial troops in the First World War shifted the balance of French public opinion and made a more vigorous pursuit of colonial affairs possible. The French Government officially pronounced as a principle of colonial policy that education was the basis

for native policy and a prerequisite for colonial economic development.

Henri Simon, postwar Minister of Colonies, issued a 1918 decree which established on paper a comprehensive education system that would—

1. Expand vocational and teacher-training courses.
2. Develop a complete secondary education program with courses basically the same as in the Metropole.
3. Increase elementary enrollments.
4. Reserve academic secondary education for the elite.

However, since the colonies were to meet the program's costs, implementation of the metropolitan decree was handicapped severely.

In 1920, Albert Sarraut, the newly appointed Minister of Colonies, attempted to revitalize colonial educational activities by—

1. Establishing the first education office within the Ministry.
2. Instituting a recruitment system to obtain metropolitan teachers for the colonies.
3. Taking steps to make the career of the colonial teacher more attractive. (By 1923, the recruitment system had met the demand sufficiently to reduce activities from a quarterly to an annual basis.)
4. Ordering each colonial governor to submit a comprehensive report of the actual educational status in his colony and a detailed plan for future action.

Reorganization of Public Education: 1924

Effective May 1, 1924, the Education Act of the Governor General of West Africa represented a moderate revision of the basic 1903 plan (already slightly modified by ordinances in 1912 and 1918). The Act further emphasized the goals of (1) expanding the use of spoken French by the populace, (2) incorporating more practical knowledge into the curriculums, and (3) preparing African civil servants.

To accomplish these goals, the village schools, providing 3 to 4 years of education, were to be responsible for the mass diffusion of spoken French and of personal hygiene practices. The regional schools, providing 5 to 8 years of study, were to stress a more formal and complete instruction in French, to introduce practical agriculture after the elementary years, and to teach manual skills if shop facilities existed nearby in government civil or military installations. In addition, one vocational upper elementary school was to be established in each colony to train apprentices and, subsequently, skilled craftsmen and foremen. Technical schools were to produce more elementary teachers, marine mechanics, and medical assistants.

For the French and assimilated African elite, the second track of metropolitan education continued as before.

Vocational-Technical Education Plans: 1932–34

The problem of adapting French education to local needs and realities received particular attention during the first two decades after World War I due to emphasis upon colonial economic development and com-

prehensive planning for colonial education, as well as worldwide economic depression.

In 1932, an intercolonial conference was held in Paris on educational adaptation. Conference reports included the following criticisms by the Inspector of Primary Education for the Federation of French West Africa:

1. Metropolitan teachers were thrust into the classroom without a knowledge of Africa or Africans.
2. African teachers received teacher training exactly like that given in France.
3. African teachers frequently repeated in rote fashion metropolitan subject matter they had learned while preparing to pass a teacher-training examination.
4. Abstract hygiene lectures were given to pupils covered with filth, and obscure French poetry was taught to young rural children without a command of French or insight into the Western conceptual world.
5. Virtually all textbooks were imported from France or French Algeria.

In France itself, efforts were underway to correlate education with economic needs through developing vocational-technical education. In 1935, the French Government established an interministerial committee to study the results of the metropolitan experience in vocational-technical education in order to suggest applications in the colonies. As a result of the committee's work, the Ministry of Colonies suggested an educational scheme to produce a vocationally oriented mass and a technically educated elite in the colonies. The scheme incorporated vocational education in the elementary school curriculum and special training of French elementary teachers in vocational subjects before their departure for the colonies.

About the same time that educational adaption was being studied in France, the 1924 Education Act was being reappraised in French West Africa. The reappraisal led to a change in the rural elementary schools, which became known as rural farm or popular schools and included a program of semivocational training based upon local occupations. Usually, the program introduced students to agriculture and animal husbandry.

To produce the type of elementary teacher needed for these rural farm or popular schools, three rural normal schools were to be strategically located in the interior of the Federation. In addition, a vocational school, modeled on the Craftsman's Institute at Bamako (Soudan, now Mali), was to be developed within each colony. A higher technical school for the Federation was to serve as the capstone to this program.

However, the depression seriously cut into the implementation of such plans. In 1934, the Ministry of Colonies reported that the colonies had suspended all recruitment of personnel and reduced salaries as well as area hardship allowances in an effort to reduce expenditures.

Status of Education Before World War II

Although the 1903 ordinances organizing public education in French

West Africa had established lower general secondary, vocational, and teacher-training education, the financial regulations placed upon colonial expenditures had severely limited educational expansion, particularly above the elementary level. For many years, only Senegal had upper secondary schools and these assumed federal status to accommodate students from the other Federation colonies.

By 1910, enrollments in the four major colonies had risen to around 8,500, almost twice the estimated number (4,300) in 1900.

Beginning in the late 1920's, vocational and general secondary schools were opened in Guinea, Ivory Coast, and Soudan. In the 1920's, vocational schools for boys were established at Bamako (Soudan) and at Abidjan (Ivory Coast). In the 1930's, secondary schools for boys were founded at Bamako (Soudan), Bingerville (Ivory Coast), and Conakry (Guinea). Similar institutions were opened in Senegal at the same time, although it already possessed a secondary school at Saint-Louis.

In 1934 and 1939, normal schools were created in Soudan and Ivory Coast and a higher technical school was established at Bamako (Soudan) in 1939.

Opportunities for girls to continue education beyond elementary school were extremely limited about this time. A school for midwives and nurses, which recruited elementary school graduates, operated in Senegal in the 1920's. A normal school for girls was opened at Rufisque, near Dakar (Senegal) in 1939, and this was followed by secondary schools at Bingerville (Ivory Coast) and at Dakar (Senegal) in 1942, and Saint-Louis (Senegal) in 1943.

Enrollments for the four colonies in 1937 were slightly under 50,000. The vast majority of students received only a partial elementary education. Most schools were of the rural or village type, characterized by poor instruction and high dropout rates. Entrants into secondary and vocational schools were largely from the urban elementary schools.

THE THIRD PERIOD: 1944-60

Brazzaville and Dakar Conferences: 1944

The educational recommendations of the Brazzaville Conference reaffirmed previously enunciated principles with emphasis on expansion of opportunity. Although reiterating the necessity of educating an elite, the conference delegates favored elementary education over secondary by advocating the establishment of a school in every village containing a minimum of 50 school-age children. They also approved French as the language of instruction and deemed the education of girls to be of equal importance with that of boys.

As a followup to the Brazzaville Conference, a meeting was held in July 1944 at Dakar (Senegal) to detail its resolutions. The meeting

approved an ambitious educational plan for French West Africa, including:

1. Opening 50,000 elementary schools
2. Recruiting a minimum of 50,000 elementary teachers (in order to provide elementary education throughout each colonial territory)
3. Establishing 200 additional upper elementary schools
4. Establishing 75 normal schools.

All facilities were to be operational within 20 years and universal elementary education was to be achieved within 50 years.

The French West African Federation Ordinance: 1945

General concern for colonial elementary education was reflected by the French West African Federation Ordinance. It had the following requirements:

1. *Program length.*—All elementary schools should offer a 6-year program, which would terminate with a school-leaving examination and a certificate. Children would be allowed 8 years to complete the program.
2. *Compulsory attendance.*—All children of indigenous civil servants and military personnel should be required to attend. (Governors were to determine in what way this requirement would be interpreted for chiefs' children.)
3. *Curriculum.*—Elementary schools should offer a metropolitan curriculum wherever the French school population justified it.
4. *Teacher training.*—Substandard courses to produce monitors should be initiated, but dropped as soon as normal schools and normal sections of secondary schools were able to meet the demands for elementary teachers.

This distinction between African and metropolitan education was condemned as discriminatory by the Africans. However, the abolition of the 4-year rural farm schools, tacitly accomplished by the ordinance, constituted a victory for the African elite. According to a variety of French sources, the abandonment of this vocationally oriented primary program was equally welcomed by many French officials because of its ineffectiveness.

Sprinkled throughout the ordinance were such qualifying phases as "in principle," "eventually," and "within the limits of the resources"; these appear to be tacit recognition of the enormous problems of eliminating the gap between principle and fact.

The French Government also acted in 1945 to develop education in the colonies. A decree detailed an extensive scholarship system for African students to study in France or North Africa. An ordinance provided all veterans, including those of the colonies, with 5 years of free education and a subsistence allowance according to need. The Ministry requested colonial officials to take special measures to increase the number of Africans acquiring secondary education. In some cases, additional 1st-year secondary classes were opened and special lessons given to pass African students on to upper secondary education. In other cases, lower secondary schools were converted into lower and upper secondary schools.

Subsequently, the Ministry set a minimum number of secondary scholarships for each colony's indigenous population.

The Plan for Modernization and Equipment: 1946

On April 30, 1946, the French Parliament passed a law establishing the Plan for Modernization and Equipment for the Overseas Territories. The law stipulated that the Ministry of Overseas France (formerly the Ministry of Colonies) should prepare a 10-year plan to transform the colonial territories into modern countries by developing them economically and socially. Even though the plan started slowly and was progressively modified and limited, it definitely stimulated development.

Under the original 10-year plan, 25 percent of the allocated funds was assigned to social development projects, and 10 percent of the 25 to education. However, neither of these percentages was actually effected, and a 1949 decree replaced the 10-year planning concept with a 4-year one.

During the first 4-year plan (1949–53), substantial numbers of secondary schools were constructed. However, since the colonial territories bore all costs of (1) operating these secondary schools (which generally had boarding facilities and French teachers), (2) maintaining elementary education (including capital outlay), (3) offering a scholarship program for study in France, and (4) subsidizing private schools, their local budgets were severely burdened. The average educational expenditure in the budgets of the colonial territories of French West Africa rose from 2.8 percent in 1930 to 17 percent in 1953.

During the second 4-year plan (1953–57), elementary school construction received emphasis. The African demand for educational equality had led to an increase in the length of the elementary program from 4 to 6 years, necessitating considerable school construction at this level.

Despite the plans, the school enrollment increase during the first 10 years fell substantially below the rate of growth required to meet the educational goals for French West Africa generalized at the 1944 Brazzaville Conference and specified at the Dakar Conference of the same year. In 1947 the enrollments were 5.3 percent of the estimated school-age population, and by 1956 had risen no higher than 13.4 percent.

The University of Dakar: 1947–57

As a capstone for the educational systems of French sub-Saharan Africa, the French had planned a University of Central Africa. However, the Balkanization of French sub-Saharan Africa after World War II defeated this concept. After a brief evolutionary period as an Institute of Advanced Studies, opened in 1947, the University Institute at Dakar (Senegal), organized in 1949, became the University of Dakar in 1957 and never developed into the official university for the entire French West African area.

A decree of November 27, 1950, had created the office of rector to head

both the Institute and public education within the West African Federation. This decree brought the metropolitan administrative organization to the educational system of the Federation.

Equality in Education

Quantitative expansion to provide educational opportunity and qualitative improvement to establish equality between the French and territorial systems were the two goals of the educational activities in French West Africa between the Second World War and the time of Independence. The policy declarations of the French Government, the 1946 Constitution, the 1956 Loi Cadre, and the insistence of many of the African elite and their liberal supporters in the Metropole supported both goals.

The educational structure and curriculums were altered to provide education equal to that of the Metropole. Examination certificates, theoretically equivalent to those in France, prevailed at the termination of the elementary, the upper secondary, and the lower secondary levels. Cultural and linguistic differences, however, handicapped the Africans and led to requests that elementary education be reformed, and that pending such a reformation entrance requirements into secondary education be eased. The French Government refused the latter request, pointing out the discrepancy between this demand and the demand that local secondary education be identical with that of France. The French did abandon the rigid metropolitan age limitation for admission to secondary schooling. The goals of quantitative expansion and qualitative equality did not appear compatible under the circumstances.

Quantitative Expansion

The post-World War II period brought an acceleration of the educational expansion begun in the decade before the war. In June 1945—at the end of the war and slightly more than a year after the Brazzaville Conference—total enrollments in the public and private schools of the four colonies were as follows: [4]

	Total	*Guinea*	*Soudan*	*Senegal*	*Ivory Coast*
Public	55,683	6,931	13,719	17,470	17,563
Private	13,102	2,059	1,337	2,308	7,398
Total	68,785	8,990	15,056	19,778	24,961

Absence of Moslem influence in the highly populated southern half of Ivory Coast facilitated development of Christian missionary schools, which partly account for the high enrollment of that colony.

Enrollments increased rapidly from 1946 to 1956, as shown in the

[4] France. Ministère de l'Education Nationale. *Afrique occidentale française*. Paris: Imprimerie Nationale, n.d. p. 25.

following approximate figures for the four colonies for the 20th century: [5]

	About 1900	*1910*	*1937*	*1946*	*1956*
Guinea	400	..	..	8,990	35,908
Soudan	800	..	..	15,056	38,908
Senegal	2,200	..	..	19,778	69,474
Ivory Coast	900	..	..	24,961	73,270
Total ...	4,300	8,500	50,000	68,785	217,560

Table 1 gives more detailed enrollment figures for the four colonies in 1956. It shows that enrollments were highest in Ivory Coast and Senegal; public school enrollment far exceeded private enrollment in each colony; approximately 90 percent of all students were in elementary schools; and of these elementary students approximately 20 percent were girls.

Table 1. Number of students in elementary, secondary, vocational, and higher educational institutions in Guinea, Soudan (Mali), Senegal, and Ivory Coast, by type of control, and percentage that the total number of students in each level or type represents of the total enrollment for each country: 1955–56

Type of control	Guinea		Soudan (Mali)		Senegal		Ivory Coast	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Grand total ...	*35,908*	*100.0*	*38,908*	*100.0*	*69,743*	*100.0*	*73,270*	*100.0*
Elementary								
Total [1]	*33,809*	94.1	*36,775*	94.6	*62,097*	89.3	*69,181*	94.4
Public	26,531	...	32,140	....	52,014	....	43,836	....
Private	7,278	....	4,635	....	10,083	....	25,345	....
Secondary								
Total [2]	*1,319*	3.7	*1,334*	3.4	*4,822*	7.0	*2,989*	4.1
Public	1,002	....	1,288	....	4,023	....	2,399	....
Private	317	....	46	....	799	....	590	....
Vocational								
Total [3]	*780*	2.2	*799*	2.0	*2,066*	3.0	*1,100*	1.5
Public	760	....	686	....	2,030	....	913	....
Private	20	....	113	....	36	....	187	....
Higher Education								
Total [4]	....	...	....	...	*488*	.7	....	....
Public	....	....	....	....	....	....	....	....
Private	....	...	....	...	488	....	....	....

[1] Percentages of girls: Guinea—20.7; Soudan—23.1; Ivory Coast—20.5; Senegal—24.9.
[2] Percentages of girls: Guinea—20.8; Soudan—25.4; Ivory Coast—17.4; Senegal—26.3.
[3] Percentages of girls: Guinea—13.7; Soudan—8.6; Ivory Coast—26.0; Senegal—25.0.
[4] Includes students from the entire Federation of French West Africa. Of the total, 13 percent were women.

Source: France, Ministère de la France d'Outre-Mer. *Enseignement Outre-mer.* Bulletin No. 8. December 1956. pp. 28–30.

Although probably too high, the following percentages of the school-age population attending all levels of school in each colony do show the

[5] Figures for 1900, 1910, and 1937 from: France, La Documentation Française. op. cit.
Figures for 1946 from: France, Ministère de l'Education Nationale. op. cit.
Figures for 1956 from: France, Ministère de la France d'Outre-Mer. *Enseignement outre-mer,* Bulletin No. 8. December 1956. pp. 28–30.

relative situation between the colonial territories in 1956: Guinea—9.5; Soudan—7.1; Senegal—20.9; and Ivory Coast—19.7.

Other estimates indicate a rather meager enrollment picture. For example, one source estimates that in 1957, of the corresponding age-groups in French West Africa as a whole, 10 percent were enrolled in elementary, 0.7 percent in secondary, and 0.1 percent in higher education.[6] Another source estimates that at about the same time, of the corresponding age-groups in the three more favored coastal territories (Guinea, Ivory Coast, and Senegal), less than 25 percent were enrolled in elementary and 2 percent in secondary education.[7]

The numbers of Africans graduating with a complete secondary education remained insignificant in terms of the manpower needs of the 1960's. In 1957, the numbers of students, including Europeans, who received their *baccalauréat* were as follows: Guinea—5, Ivory Coast—69, and Senegal—172. In 1960, 31 Malians were awarded the *baccalauréat*.[8]

At the time of Independence, as the preceding figures indicate, Senegal and Ivory Coast inherited more developed school systems than either Guinea or Mali. Guinea was faced with an additional difficulty—withdrawal of much French support when the territory in 1958 voted for immediate independence rather than for participation in the French Community.

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[6] Abdou Moumouni. *L'Education en Afrique*. Paris: F. Maspero, 1964. p. 127.

[7] F. Harbison and C. Myers (eds.). *Manpower and Education*. New York: McGraw-Hill, 1965. p. 239.

[8] Ibid. Figure for Mali from the Ministry of National Education in Mali.

II. The Republic of Guinea

SUMMARY OF CHARACTERISTICS

The People and the Land

With an estimated population of 3.7 million,[1] the Republic of Guinea contains three major ethnic groups—the Foulahs, the Malinkes, and the Soussous. Of the total population, over half are aged 19 or less. The great majority of the people are Moslems. French is the official language. There are only two major towns—Conakry, the capital and major port, with about 230,000 inhabitants,[2] and Kankan, the largest interior town. The population is primarily rural.

Consisting of 95,000 square miles, Guinea is situated on the southwestern section of the African extension into the Atlantic Ocean, about 10 degrees north of the Equator. From north to south, it borders Portuguese Guinea, Senegal, Mali, Ivory Coast, Liberia, and Sierra Leone. Guinea may be divided into four main geographical areas: (1) coastal Guinea, a humid strip which attains its maximum humidity around the capital city of Conakry; (2) middle Guinea, consisting of the famous Foutah Djallon mountain region where some of the major West African rivers begin; (3) the savannah, representing a third of the country; and (4) the forest region, a mountainous area to the southeast that borders on Ivory Coast and Liberia.

The Economy

Approximately 90 percent of all Guineans depend directly or indirectly on subsistence agriculture.[3] A diversified agricultural production results from the environmental differences of the four geographical regions, with grain and cattle raising prevalent in the northern and mountainous areas, and a variety of crops produced in other areas. These crops include bananas, palm oil, pineapples, and rice in the humid coastal regions and coffee, palm oil, and tobacco in the southern forest areas.

Minerals, primarily alumina, iron ore, bauxite, and diamonds, account for over two-thirds of Guinea's export revenue. Alumina provides about 60 percent of the total earnings from minerals.

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[1] U.S. Department of State. *Background Notes: Republic of Guinea* (Publication No. 8057). Washington, D.C.: Office of Media Services, July 1969, p. 1. The estimate is dated 1968.
[2] Ibid.
[3] Ibid. p. 3.

While Guinea is rich in resources, the fact that annual per capital income amounts to less than $70 indicates its present low level of economic development. Although favoring a strongly centralized and planned economy in the socialist tradition, the Government has permitted private investment by large international companies. These latter operations account for approximately 10 percent of the gross domestic product.

The Government

In September 1958, Guinea voted against membership in the French Community; in October the Territorial Assembly proclaimed complete independence. The Government includes a President elected by universal suffrage for 7 years and a single-level National Assembly elected for 5 years. The administrative structure contains four regions, 136 districts, and over 7,000 local communes.

The Government is paralleled by the single political party, the *Parti Démocratique de Guinée* (PDG), headed by President Sékou Touré. When the Party structure was reorganized in 1967, a 45-man Central Committee assumed the overall directive functions of the former 15-man National Political Bureau, which in turn, with a membership of seven, became the executive committee of the Central Committee. This Central Committee is highly influential as a decisionmaking body for national policies. Membership in the Party is substantial throughout the country; the Party structure extends to every village.

Governmental policies and operations are strongly influenced by the Marxist tradition; attempts are made, however, to create an African socialism through the adaptation of Marxist doctrine to Guinean realities.

THE EDUCATIONAL SYSTEM

Policy Development

The Party is a major instrument in all policy formulation including that pertaining to education. Serving as a two-way communication channel, its structure permits rapid flow of information both ways between the highly centralized top of the political pyramid and the grassroots base. Once policy has been determined within the framework of Guinean Marxist doctrine, the Government implements it through legislation or decrees.

Education has been viewed by Guinean leaders as a major instrument for developing political unity and for eliminating the vestiges of colonialism (which implies both the feudal tribal and the bourgeois systems). Hence, the Party and the Government have given continuous attention to the qualitative and quantitative problems of education. They have instituted numerous and frequent reforms which render long-range development planning extremely uncertain.

Nevertheless, Guinea has had two development plans since Inde-

pendence. The first covered 3 years—from 1960 through 1962—and the second 7 years—from 1964 through 1970. The first plan called for an allocation of approximately 25 percent of the national budget for elementary and secondary school construction and staffing. The second plan emphasized higher education, including the establishment of a university and a medical school. Apparently manpower needs have not been determined specifically enough to serve as a guide to balanced educational development. Since the planning documents have not been published, details of projects and accomplishments are not available.

Objectives

Stated in various governmental and party documents, objectives include (1) renewing African cultural values, (2) providing the people with access to scientific culture and to techniques necessary for national development, and (3) implementing the right of every citizen to education under article 44, title 10, of the 1958 Constitution.

Qualitatively, these objectives imply Africanizing the curriculum, with stress upon scientific and technical learning related to economic development. Equal emphasis is placed upon the cultivation of positive attitudes toward the world of work, the socialistic system, and African culture.

Quantitatively, the objectives imply providing all school-age children with a minimum basic formal education and access to further schooling for those demonstrating high capacity, and providing all Guinean citizens with equal access to a cultural education adapted to the needs of a modern society.

Structure

To achieve its educational objectives, the Government has initiated numerous reforms and modifications in structure, curriculum, and administration. The reforms began with the Presidential Order of August 5, 1959, which in 75 articles established the framework for education. The Order included aims, general principles (including compulsory education for children aged 7 to 15 years and free education at all levels), and articles on administration, personnel, programs, and diplomas.

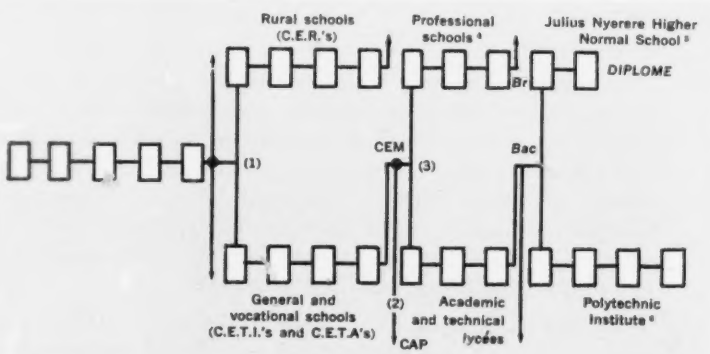
From available data, it is frequently impossible to determine the degree to which a given reform has been implemented. For example, in 1961 the Government established a structure consisting of a 4-year first cycle, a 3-year second cycle, and a 5-year third cycle.[4] This 4–3–5 structure was altered to 4–5–3 almost immediately.[5] It is not clear if the latter system ever reached the stage of implementation. It is clear, however, that it was replaced in October 1964 by a 5–4–3 structure shown in chart 1.

[4] République de Guinée, Ministère de l'Education Nationale. *Rapport d'activité*, 3398/MEN. Conakry: n.d. (Mimeograph) and *Rapport sur la réforme de l'enseignement primaire: Deuxième session 1961 de la conférence nationale du P.D.G.* Conakry, December 1961. (Mimeograph)

[5] ———. *Rapport d'activité*, 5485/MEN. Conakry, October 31, 1962. (Mimeograph) and *Structure générale de l'enseignement guinéen*. Conakry, n.d. (Mimeograph)

Chart 1. Educational structure in Guinea: 1966–67

	First cycle					Second cycle				Third cycle			Higher education			
Age:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22



KEY:

●=compatitive examination

Certificates	Institutions
Bac=*baccalauréat*	C.E.G.'s=*collèges d'enseignement général*
Br=*brevet*	C.E.R.'s=*collèges d'enseignement rural*
CAP=certificat d'aptitude professionelle	C.E.T.A.'s=*collèges d'enseignement technique agricole*
CEM=certificat d'études moyennes	C.E.T.I.'s=*collèges d'enseignement technique industriel*

NOTE: The 6th grade is reported to be transferred to the 1st cycle as of the 1968–69 school year.

[1] The plan calls for approximately ¾ of 6th-grade entrants to attend rural schools, and ¼ to attend technical schools.

[2] After receiving the CEM, students not continuing to the third cycle may take accelerated skill training to receive the CAP.

[3] The plan calls for approximately ⅘ of the 10th-grade entrants to attend professional schools, and ⅕ to attend academic or technical *lycées*.

[4] Professional schools offer (among other programs) teacher training for elementary and 2d-cycle rural schools.

[5] This college offers teacher training for 2d-cycle vocational schools; some graduates teach in 3d-cycle professional schools.

[6] Programs vary from 4 to 6 years in length, depending upon the field of study. The Institute's programs include teacher training for 3d-cycle schools.

Source: Louis Behanzin, *Rapport général sur l'enseignement en République de Guinée*, n.d. p. 11. (Mimeograph)

Grade 6 was transferred to the first cycle in 1968–69, making a 6–3–3 structure.[6]

Thus, at present, schooling from the 1st through the 6th grades (elementary or first-cycle) for children 7 to 12 years old constitutes mass education. Although the majority of children leave the formal system after the 6th grade, many will attend the rural schools—*collèges d'enseignement rural* (C.E.R.'s)—as these are established throughout the country.

According to plans for 1965–66, over 20 percent of the first-cycle graduates, after passing an entrance examination, were to enter lower secondary (second cycle) schools then offering 4 years (grades 6 through 9) of education to youths 12 to 15 years of age and now providing 3 years (grades 7 through 9).[7] Formerly known as *collèges d'enseignement général* (C.E.G.'s) and *collèges d'enseignement technique industriel* (C.E.T.I.'s) or *agricole* (C.E.T.A.'s), these schools offer or will offer a program which is two-thirds academic and one-third vocational.[8]

Entrance into the third cycle of grades 10 through 12 (upper secondary level) for 16-to-18-year-olds is determined by an entrance examination and the average achievement obtained during the second-cycle school years.

In 1966, higher education was provided primarily at the Polytechnic Institute and at the Julius Nyerere Higher Normal School in Conakry. The former institution comprised six faculties and one school of administration. During the same year faculties of chemistry and of medicine-pharmacy were being formed. There also exist several small technician-level schools (grades 12 to 14), and in 1969 or 1970 a Polytechnic Institute was opened in Kankan.[9]

Education is free at all levels and (in principle) compulsory for all children between the ages of 7 and 17. Local languages are the language of instruction for the first 4 primary grades, followed by French thereafter in the formal system. The adult literacy program which is given in six

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[6] Sources for the 1964 changes are: République de Guinée, Présidence de la République. *Orientation des élèves ayant terminé le cycle primaire*. 59/PRG. n.d. (Mimeograph) and Louis Behanzin. *Rapport général sur l'enseignement en République de Guinée*. n.d. (Mimeograph)

Sources for the 1968–69 change include: *Horoya* (a newspaper in Conakry, Guinea), Nov. 16, 1971, p. 3, and Conférence Internationale de l'Education (33d session). *Intervention du chef de la délégation de la République de Guinée*. Geneva, Sept. 16, 1971, p. 5. It should be noted that these latter sources refer to primary, secondary, and higher education as the first, second, and third cycles, respectively.

[7] République de Guinée, Ministère de l'Education Nationale. *Rapport sur la liaison de l'école à la vie*. n.d. p. 4. (Mimeograph)

[8] Although the titles of the lower secondary schools employ the term "technical education," the training at this level is referred to generally as "prevocational or vocational." The latter term is employed in this text.

As of 1968, schools of all levels and types are also referred to as *centres d'enseignement révolutionnaire* (C.E.R.'s).

[9] Louis Behanzin, Inspector General of Education in Guinea, in an article in *Horoya* on Mar. 26, 1966, pp. 1 and 3 and Mar. 27–28, 1966, pp. 1 and 2. No recent data are available to the author concerning the status of the two faculties being formed in 1966. See footnote 23 for further information about the technician-level schools.

African languages and concludes with an introduction to French. All private schools were nationalized during the 1961–62 school year.

Administration

The Ministry of National Education administers the entire system of education with minor exceptions involving specialized technical institutions. The Ministry's central administration consists of two major branches. One deals with administrative matters such as finance, personnel, transportation, and housing; the other deals with technical services and the supervision of instruction. The former is under the Director of the Minister's Cabinet; the latter is under the Director General of Instruction (or Education). Chart 2 shows the structure of the Ministry of National Education.

While the basic two-branch organizational pattern appears functional, the actual operation reportedly suffers from two complementary general deficiencies. On the one hand, top-level officials tend to immerse themselves in details; on the other, certain services lack qualified personnel. Although such problems are not unusual in developing countries, their existence in Guinea may be considered more critical since the country has embarked upon basic educational reforms which place many demands upon the central administrative and technical authorities.

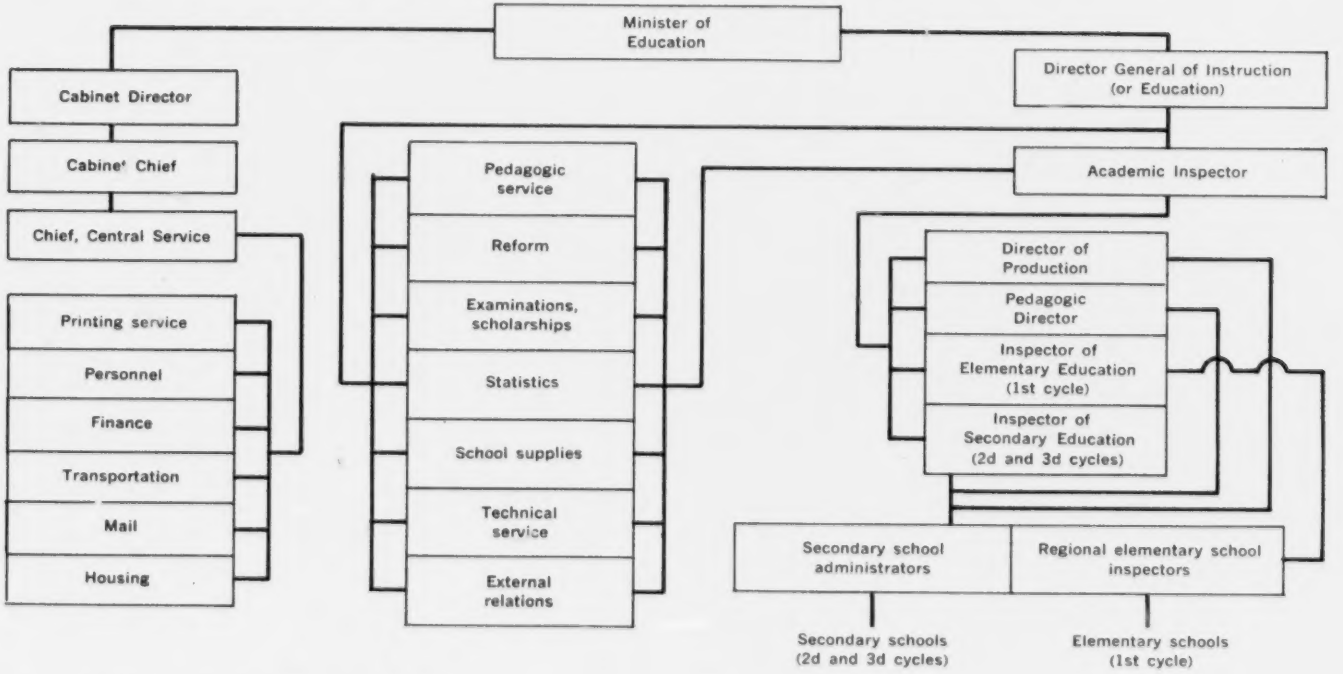
Planning and Supervision

Educational planning is carried out by the Director General of Instruction (or Education) assisted by the heads of various services and by the Academic Inspector and the latter's subordinates. Although there is a statistical service, no comprehensive educational planning unit exists to facilitate the complex planning endeavers.

Control and supervision activities are directed by an Academic Inspector assisted by the inspectors of elementary (first-cycle) and secondary (second-cycle and third-cycle) education, by a Director of Production, and by a Pedagogic Director who assists with the curriculums and to whom 26 regional elementary school inspectors are responsible. (To strengthen control, the number was raised from 12 to 26 in 1963.)

The position and functions of the Director of Production evolved from the principles of relating the school to Guinean life and work by the introduction of agricultural and craft projects in all schools. The Director of Production assists the elementary and secondary schools in planning, operating, and managing their agricultural and craft activities. Although the financial accounting for such production is the responsibility of local schools officials, the records are checked by the inspectors of elementary education for elementary schools, by the Academic Inspector or Inspector of Secondary Education for most secondary schools, and by the regional governors for secondary schools in the remote interior of the country.

Chart 2. Ministry of National Education in Guinea: 1964–65



Source: Republic of Guinea, Ministry of National Education.

ELEMENTARY EDUCATION (FIRST CYCLE)

Objectives

First-cycle education, which until recently consisted of 5 years of general education, has two purposes: (1) To provide the mass of pupils with a basic background which will render them more effective in the grassroots economic development tasks than their illiterate peers; and (2) to serve as a basis for selecting a small group for further training to meet future technical and administrative manpower needs. In this connection, the Government has attempted to dispel the popular assumption that elementary education guarantees a future administrative position.

Curriculum

The first cycle emphasizes the 3 R's. Instruction is in a local language during the first 4 years. French is introduced in the 3d year and becomes the medium of instruction in the 5th year. In the 4th and 5th grades, pupils are introduced to practical agricultural and craft skills. The distribution of academic subject matter, not including French, in 1964 was as follows: [10]

Subject*	Grades				
	1	2	3	4	5
Arithmetic	5	5	5	7	7
Composition	..	..	..	1	1
Elocution	2	2	2	2	2
Geography	..	..	1	1	1
Reading	8	8	6	4	4
Reciting	1	1	1	1	1
Science	..	..	2	3	4
Spelling	1	1	1	1	1
Writing	2½	2½	2	..	..
Total	19½	19½	20	20	21

* Civics and ethics are integrated with other subject matter in grades 3–5 and grades 1–5, respectively.

Enrollments

During the 1957–58 school year, 42,543 pupils were enrolled in the first cycle. Enrollment during the 1958–59 school year, during which Independence was declared, grew to a modest 46,616. In the subsequent school year, enrollments increased by almost 50 percent, to 66,428. By 1962–63 the number of pupils had almost doubled, to total 111,937.[11] This figure represented between 25 and 30 percent of the elementary

[10] Republic of Guinea, Ministry of National Education. n.d. (Mimeograph) As noted previously, grade 6 was transferred from the second to the first cycle in 1968–69.

[11] République de Guinée, Ministère de l'Education Nationale. *Revue de l'éducation nationale, de la jeunesse et de la culture*, No. 3. Conakry: Le Ministère, January 1964. p. 31.

school-age group. By June 1968, enrollments reached almost 150,000.[12] The average class size during the 1962–63 school year was approximately 50 pupils; in the 1st grade, before dropouts could occur, average class size was undoubtedly larger.

Detailed statistics are not available to determine the student output based upon original intake. However, one report indicates that the Government anticipates that approximately 65 percent of those entering the 1st grade will enter the 5th or the former terminal grade of first-cycle education in the 1970's.[13]

Teachers

First-cycle teachers are classified as auxiliary monitors, assistant monitors, monitors, assistant teachers, and teachers. In 1965–66, all types of teachers totaled 3,915 and all were Guinean.[14] The quantitative breakdown by qualification or category is unknown, but an estimated two-thirds are auxiliary monitors, who are usually elementary school graduates with no further education or training. Assistant monitors may have 7 years of education; monitors, 8 or 9 years; assistant teachers, 9 to 11 years; and teachers, 12 years with pedagogical training.

The qualifications of auxiliary and assistant monitors have been acknowledged as too low and the recruitment of teachers with these minimum levels has been curtailed. General criticisms of first-cycle teachers include abnormal absences from the classroom and lack of concern for evaluating pupils' work.[15]

Schools and Equipment

The construction and maintenance of first-cycle schools is the responsibility of local communities. A plan was developed in the early 1960's to construct sufficient classrooms to permit the entire 7-year-old group to enter the 1st grade by the 1966–67 school year. From the 1957–58 school year to that of 1965–66, the number of schools grew from 287 to 1,640.[16] However, many of these school units would be classified as temporary shelters by international standards.

Equipment problems have been complicated by the rapid expansion of elementary education and the concentration of external aid upon secondary and higher education. Thus, such standard school furnishings as blackboards, textbooks, and expendable supplies have remained in short supply. The more remote rural schools are generally less well equipped than the urban schools.

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[12] *Horoya*. loc. cit., June 20, 1968. pp. 1 and 2. According to the two following sources, 1969–70 enrollments were 191,820. *Horoya*. loc. cit. Nov. 16, 1971 p. 3 *and* Conférence Internationale de l'Education (33d session). op. cit. p. 7.

[13] République de Guinée, Ministère de l'Education Nationale. *Revue du travailleur de l'éducation nationale*, No. 4. Conakry: Le Ministère, September 1964. p. 6.

[14] *Horoya*. loc. cit., Mar. 26, 1966. pp. 1 and 2.

[15] République de Guinée, Ministère de l'Education Nationale. *Revue du travailleur de l'éducation nationale*, No. 4. op. cit. p. 4:

[16] *Horoya*. loc. cit. Mar. 26, 1966. pp. 1 and 2.

SECONDARY EDUCATION (SECOND AND THIRD CYCLES)

The philosophy that education must be practical for both economic and sociopsychological reasons is bringing about basic changes in secondary education in Guinea. Terminal students obviously require vocational skills related to economic development; and all students need to acquire appreciation for manual labor and technology so they will not disdain manual work nor the laboring class. Hence it is seen as critical for national development that the gross distinctions between academic and vocational-technical education disappear. In line with this philosophy, all secondary schools are adding vocational-technical studies.

Second-Cycle (Lower Secondary) Education

General and vocational schools.—The second-cycle reform started in 1966 with a progressive conversion of the general and vocational schools (*collèges d'enseignement général*—C.E.G.'s—and *collèges d'enseignement technique*—C.E.T.'s) into institutions offering a common academic program and vocational specialization in industrial or agricultural subjects. Since the curriculum is two-thirds academic, these schools, known as *collèges d'enseignement technique industriel* or *agricolo* (C.E.T.I.'s or C.E.T.A.'s), still are the means to further education. On the other hand, the rural schools or *collèges d'enseignement rural* (C.E.R.'s), first established in 1966, are vocationally oriented with a terminal program.

In 1966, there were 30 C.E.G.'s (second-cycle general schools) to be converted to the new program.[17] Six of these and 2 C.E.T.'s (second-cycle vocational schools) were to offer an industrial arts program while the others were to offer agricultural education. These programs account for one-third of the curriculum and require facilities, equipment, and instructional staff beyond those available at the general schools.

The conversion difficulties are illustrated by the capacity of the eight C.E.T.I.'s to offer industrial education.[18] During the 1966–67 school year, all reportedly lacked shop facilities, faculty, and expendable supplies necessary for the program. The school at Kindia, a former apprenticeship training center and subsequently a C.E.T., was most adequate in these respects, although some of the basic machinery was inoperative and expendable materials for the shops were not regularly available. Conditions at the second former C.E.T., the school at Nzerekore, although less adequate than those at Kindia, were superior from the vocational point of view to the remaining six schools which formerly offered only general education.

Serious faculty shortages in vocational subjects existed in all schools during the 1966–67 school year. Dependent upon expatriate personnel and with no teacher-training program geared to meet staffing needs,

[17] A. Fougues. *Guinée, enseignement technique et professionnel.* Paris: UNESCO, March 1967. p. 2.
[18] Ibid.

the Government was reported to be planning to produce vocational instructors at two third-cycle schools, the Ecole des Cadres (renamed the Ecole Nationale d'Aide Ingénieurs des Arts et Métiers) and the Agricultural School of Kindia.

Curriculum development activities for the C.E.T.'s were reported to be fairly advanced by the end of 1966 with the 4-year programs in technology and drafting virtually completed and published in all principal areas of study except masonry. Most related practical or shop course work was not yet detailed.

Rural schools.—The objectives of the new rural schools (C.E.R.'s) are to "create a new, modern, educated peasant, a complete rural animator, conscientious and qualified, capable of increasing and of perfecting his intellect and his productive capacities." [19] First established in 1966, these schools may be providing junior agricultural extension workers who have not been trained elsewhere. The Seven-Year Plan called for 1,000 such workers by 1971.

The curriculum development committee for the new rural schools, placed under the chairmanship of the Minister of Rural Economy, included officials both of that ministry and of the Ministries of Education, Health, Economic Development, and Youth. Dividing the program of studies into three categories, the committee established the following timetable for a 45-week school year.

Number of weeks	Category	Hours per week
30	General education courses	8
	Vocational courses	15
	Production work	15
15	Production work	40

The general education courses are to include French, history-geography-civics, mathematics, and physics and chemistry, all as applied rather than pure subjects. For example, French is to be comprised of dictation, grammar, and vocabulary, with the orientation upon technical usage. The usual component of French literature is omitted. History-geography-civics will stress Africa, Guinea, and the role of the Party in the socioeconomic development of the people. Mathematics will include elementary geometry applied to such problems as irrigation and drainage, and arithmetic applied to the accounting and management operations in agricultural cooperatives. The physics and chemistry courses are to provide practical knowledge of the weather, of simple machines, and of the properties of fertilizers, grains, insecticides, plants, and soil.

The vocational courses are to be based upon agriculture animal husbandry, hygiene and first aid, and water and forests. The comprehensive

[19] **République de Guinée, Ministère de l'Education Nationale.** *Extraits du rapport de présentation academique des collèges d'enseignement rural.* Conakry, n.d. n.p. (Mimeograph)

content to be covered within these sectors cannot be detailed here. It does suggest the need for a highly qualified faculty and extensive, well-equipped, and well-supplied facilities.

The production work is to consist of 15 hours weekly for 30 weeks and 40 hours weekly for 15 weeks. The full-time work will be scheduled on a regional basis depending upon the types of crops and related seasonal labor requirements.

In 1967, the Minister of National Education was reported to be giving priority to the complex developmental problems of these rural schools. This focus has caused some delay in finalizing the plans for the conversion of existing second-cycle schools.

Enrollment projections.—The national Seven-Year Plan (1964–70) calls for 15,000 students to enter each year into the C.E.T.I.'s and C.E.T.A.'s beginning in 1970, with an eventual student population of approximately 45,000 distributed throughout the 4-year program. The target number of operative schools(to include the industrial, agricultural, or possibly combined areas of study) totals 165, with at least one school in every district.

The implications of this plan in terms of manpower, financing, construction, and equipment are enormous. Although the staffing requirements in general education may be met by Guinean personnel, it would appear that those for vocational education will have to be met largely through external technical assistance for many years to come. Capital costs required for construction and equipment will surpass significantly the costs if the schools were to offer only general education. Recurrent costs will add a major burden to the annual national budgets; in this regard, it is difficult to envisage that student production efforts will have more than a marginal effect in reducing the recurrent expenditures. Finally, the management and logistical tasks will be extremely demanding. In order to implement the plan, the Government has solicited extensive assistance from both bilateral and multilateral sources.

Third-Cycle (Upper Secondary) Education

Objectives.—The two objectives of this level of education are to train technicians in terminal programs and to prepare students for further study at higher education institutions. The former attend 3-year courses in the professional schools while the latter attend 3-year courses in the academic or technical *lycées.* The enrollment distribution is planned to be two-thirds to the professional schools and one-third to the *lycées.*

Academic and technical lycées.—The curriculums of the academic *lycées* consist of academic courses; those of the technical *lycées* include approximately three-fourths academic and one-fourth theoretical and practical technical studies. Both programs lead to the examination for the *baccalauréat.* This examination is given in two parts, one before and one after the 12th grade.

The range of major study areas offered recently in the *lycées* is indi-

cated by Decree No. 318 of June 27, 1963, which detailed the *baccalauréat* examinations in general and in technical third-cycle education. The former included two areas, classical studies and mathematics, while the latter included the following: agriculture, chemistry, economics, geology, mechanics, mines, and public works. In 1964 the majority of candidates were in the field of general education and there were none in agriculture and mechanics.

As an economy measure, all *lycées* are progressively being converted from boarding to day institutions. As of October 1966, according to a Ministry of National Education Circular (No. 5210 MEN, 12/29/65), students entering the 1st year of the *lycées* (grade 10) and those repeating the 2d and 3d years (grades 11 and 12) were to be nonboarders. Although the circular specifically exempted teacher-training schools from this order, the document does not mention other types of third-cycle professional schools.

Professional schools.—In general terms, the curriculums of the professional schools consist of one-fourth academic and three-fourths theoretical and practical technical studies. Upon completing the program, a student receives a diploma known as a *brevet*.

The National Agricultural School of Kindia, established in 1961 and under the authority of the Minister of Rural Economy, had 105 students evenly distributed between grades 10, 11, and 12 in 1965. The lack of qualified teachers and of facilities and equipment has reportedly limited the quality of instruction at the institution. Primarily, the graduates serve as middle-level technicians and administrators for the Ministry of Rural Economy, although a portion have entered farming. The school has been mentioned as the teacher-training center for agricultural instructors in second-cycle rural schools.

A school of drafting and applied arts was opened at the beginning of the 1964–65 school year, with the dual objective of training teachers for second-cycle schools and design specialists for textiles.

Teacher training for first-cycle (elementary) education has been conducted on two levels until recently. Two slightly different programs for assistant elementary teachers were offered at the Primary Normal School of Kankan and at some of the larger second-cycle schools. However, in both instances the students became qualified to teach after the 9th grade. This level of training has been evaluated as inadequate and plans existed in 1965 to shift to the more recent program described below.

The program for graduation as an elementary school teacher consists of 2 years after grade 10 at a normal school such as the Ecole Normale d'Instituteurs de Conakry. Combining general education and pedagogic training, the program of studies is related to the subject matter and the pedagogy of the elementary school and thus a graduate receives a teaching certificate equivalent to a technical school diploma, the *brevet*, rather than to the more prestigious *baccalauréat*.

In 1964, a parallel teacher-training program was initiated at the Ecole Normale Rurale de Macenta. It offers studies in agriculture and animal husbandry in addition to the general and pedagogic subjects. Graduates will be particularly suited to teach in the rural first-cycle (elementary) schools where the curriculum includes instruction in agriculture during the 4th and 5th grades.

Enrollments

The rapid increase in student places available at the secondary level is illustrated by a comparison of enrollments in 1957–58 with those of 1967–1968. During this 10-year period, the number of students increased from 2,457 to 36,379, not including the 12,500 additional students in the new rural schools.[20] Between 1957 and 1966 the number of schools jumped from 8 to 46 while the number of teachers increased from 62 to 887.[21] Of 835 teachers in 1965, 313 were expatriates teaching primarily at the third-cycle level; the majority of the 522 Guineans were instructors at the second-cycle level.

Absence of statistical data prohibits an analysis of dropout, repetition, and promotion rates. However, there is no available evidence which suggests that the high wastage rates prevalent in other Francophone African nations have been eliminated or reduced substantially in Guinea. Global enrollment figures for the two cycles over a 5-year period (1957–61), compared with number of diplomas awarded at the conclusion of each cycle for the same years, suggest that the wastage problem remains severe.

Quality of Instruction

As described by a variety of sources, the quality of instruction is very uneven, with third-cycle instruction generally superior to that of the second-cycle. Within each cycle, there are significant variations between schools; urban schools frequently have better facilities and more complete, qualified staffs.

In 1964, the Guinean Director General of Instruction (or Education), commenting upon the qualitative problems of all educational levels, singled out the second-cycle schools as particularly lacking in organization and control, with such matters as proper time-tables, teachers' punctuality and diligence, and correction of students' papers frequently neglected.[22]

HIGHER EDUCATION

The major institutions at the higher education level include the 4-year Polytechnic Institute (at Conakry) and the 2-year Julius Nyerere Higher

[20] *Horoya*. loc. cit. June 20, 1968. pp. 1 and 2. According to the two 1971 sources listed in footnote 12, 1969–70 enrollments totaled 49,832.

[21] *Horoya*. loc. cit. Mar. 26, 1966. pp. 1 and 3.

[22] République de Guinée, Ministère de l'Education Nationale. *Revue du travailleur de l'éducation nationale*, No. 4. loc. cit. p. 5.

Normal School. Combined enrollments totaled 600 as of June 1968. Recently a Polytechnic Institute has opened in Kankan. In addition, there exist several small technician-level schools (grades 12 to 14) in such fields as agriculture, health, applied arts, communications, and commerce.[23]

The Polytechnic Institute

Built with Russian assistance, the Polytechnic Institute is an immense establishment with room for 1,500 students. Surrounded by a large campus, it has elaborate athletic facilities. In 1964–65, there were 187 students and an instructional staff of 57. By 1965–66, the number of students was reported to be 260.[24]

During that same year, the Institute offered programs in its faculties of agronomy, electromechanics, engineering, mine geology, sciences, and social sciences, and in the School of Administration. The faculties of science and of social sciences principally prepare teachers for third-cycle schools.

The majority of instructional personnel are expatriates recruited through bilateral assistance. The inability of many instructors to speak French has necessitated reliance upon interpreters who lack competence in technical subject matter.

The first class was admitted in October 1962. Through 1964, admission to the Institute was open to all holders of the *baccalauréat;* beginning in 1965, a competitive examination was also required. Courses vary from 4 to 6 years in length. All 1st-year students take a common course with the exception of those in letters. In the following years, engineering courses are said to be the most popular; and in courses in fields leading to third-cycle (upper secondary) teaching and the *licence* students show less interest. Those fields include economics, history, literature, mathematics, science (biology, chemistry, physics), and sociology. Agronomy has been hampered by absence of ground for experimental and research purposes.

School of Administration

The School of Administration, formerly administered by the Office of the Presidency, prepares career civil servants. Enrollment was reported to be 26 students during 1964–65. The 4-year program leads to the *licence en sciences administratives.*

The Julius Nyerere Higher Normal School

Graduates of the 2-year Julius Nyerere Higher Normal School serve primarily as teachers for second-cycle education; a few have been reported teaching at third-cycle professional schools. The curriculum includes approximately one-fourth academic and three-fourths pedagogic training.

Due to the pressing need for second-cycle teachers, the entrance require-

[23] *Horoya.* loc. cit. June 20, 1968. pp. 1 and 2. According to the following source, 1969–70 enrollments at the higher and technician levels, respectively, were 1,555 and 2,201. Conférence Internationale de l'Education (33d session). op. cit. p. 7.

[24] *Horoya.* loc. cit. Mar. 27–28, 1966. pp. 1 and 2.

ment of the *baccalauréat* was waived during 1961 and 1962, but apparently enforced in 1963, as indicated by the respective intake for the 3 years—248, 199, and 93. In relation to the first two figures, an apparent low dropout rate is indicated by available statistics which showed 232 2d-year students in 1962 and 187 in 1963. Thus, one could assume that the annual output target of 180 new teachers (*professeurs adjoints*) was met in 1963 and 1964, but not in 1965 due to the low intake in 1963.

Problems

Among the most significant problems at the higher education level are enormous costs per pupil, underutilization of facilities, dependency upon expatriate professors (leading to partial payment in foreign exchange and frequently to a language barrier), and lack of appropriate instructional equipment and of sufficient expendable materials.

In 1964–65, for example, 350 students were receiving instruction from 65 professors, of whom 55 were expatriates. The overall teacher-student ratio approximated 1 to 5—an expensive ratio.

Because the majority of expatriate teachers for both the secondary and higher education level were recruited though non-Francophone sources, there was a communication problem which seriously handicapped learning. Although the number of teachers from France has increased since 1961 at the secondary level, at the university level the French Government has not met Guinean requests for substantial numbers of teachers from France, because of a shortage in France and the French policy of supporting Francophone regional rather than national institutions.

Although well endowed with equipment, the Polytechnic Institute reportedly lacks many instructional items required for specific courses. Also, some of the available equipment, such as heavy tractors, is not appropriate for West Africa, and critical expendables, including chemicals, are said to be frequently unavailable.

STUDY ABROAD

The numbers of secondary and postsecondary students abroad in 1958 and 1962 were reported to be 238 and 2,000 respectively.[25] An unverified oral report to the author claimed that the number abroad in the midsixties had declined to about 1,000 to 1,200 due to the opening of more student places within Guinea, the return of early and short-term overseas students, and a policy to reduce the length of overseas studies in order to produce adequate rather than sophisticated specialists in certain fields.

The usual problems generated by overseas studies (those of students attempting to stay abroad, to change their courses of study, and to readjust to the local environment, job, and wage structures), have been par-

[25] République de Guinée, Ministère de l'Education Nationale. *Revue de l'éducation nationale, de la jeunesse et de la culture*, No. 2. loc. cit. October 1963 p. 3.

ticularly acute in Guinea. Because of the official political and social ideology, overseas study in communist countries is most appropriate politically, but the language barrier constitutes a major problem. Study in France and at regional Francophone institutions in Africa—the most logical solution from the critical criterion of communication—tends to erode a student's acceptance of the official ideology and to lead to a distaste for the existing standard of living.

While making major efforts to increase secondary and postsecondary educational opportunity at home as the ultimate solution to the problems mentioned above, the Government and the Party increased control over external study through establishing a national scholarship committee under the National Political Bureau of PDG. This committee is reported to evaluate the reliability of the applicants in order to minimize defections, delaying tactics to remain abroad, and discontent upon return.

No breakdown of students by area of study and host country is available. The majority of students have been channeled to Russia and Eastern Europe; France has received a significant portion of the remainder. Perhaps as much as 25 percent are scattered throughout other countries in Western Europe, North Africa, and North America. Between 1959 and 1964, over 200 Guineans were reported to have studied in the United States. Mainland China has also received small groups. A few are studying at the regional Universities of Dakar and Abidjan.

OUT-OF-SCHOOL EDUCATION

Literacy

In January 1967, the Governing Council of the United Nations Development Program (Special Fund) approved Guinea as one of six countries to divide a total of $8 million in international funds as participants in UNESCO's experimental world literacy program. Resulting from an appeal made by the UNESCO General Conference in 1964 and reinforced by the World Conference of Ministers of Education on the Eradication of Illiteracy, Guinea's program, like those of the other participants, represents a new functional approach to the literacy problem. This experimental program focuses the literacy campaigns in restricted geographical and occupational sectors and gives the workers both literacy instruction and technological training. It is hoped that this type of program may be more successful than the traditional dispersed approach for which enthusiasm has waned in recent years.

As initially planned, Guinea's program (directed by the National Literacy Service and implemented by a team of international specialists in conjunction with a national literacy committee and regional coordinating committees) will be aimed at approximately 3,500 industrial workers and 75,000 agricultural workers in four regions of the country.

Industrial workers will receive literacy instruction from foremen and

skilled workers already possessing some general and technical knowledge. Agricultural workers will receive instruction from agricultural technicians, school teachers, and selected rural leaders. All instructors will receive intensive preservice and inservice training.

The literacy courses for industrial workers will be in French, and for agricultural workers in the various African vernaculars for at least the initial year of the 5-year program. The international experts, equipment, fellowships, and expatriate consultants to evaluate the program will be financed by international funds amounting to US $1.4 million. Guinea will meet the other costs.

Affecting only a small percentage of Guinea's illiterates (estimated at over 90 percent of the active population [28]), this U.N. project will not lead to a reduction of Guinea's regular literacy campaign. The regular campaign, however, is handicapped by lack of funds, particularly to print instructional materials in the African languages.

Training in Industry

The policy of the Government is to "bring the factory to the school" and the "school to the factory." The most notable example of the latter has been conducted by the FRIA Mining Corporation, a mixed international and state concern with the largest production in Guinea of bauxite and alumina. FRIA has operated programs for training skilled labor more or less successfully, although the output in 1963 of those satisfactorily completing their training totaled less than half of the original intake—30 out of 70. Further, the 70 initial trainees were all that could qualify out of a total of 600 applicants. Most applicants were rejected because they lacked an adequate basic education even though all had completed elementary school.

Although the quality and level of instruction in other inservice programs, mainly state enterprises, are reported to be inferior to that of FRIA, the limited needs for semiskilled industrial labor can probably best be met by on-the-job training. Training for the middle and higher occupational levels requires a different solution offering considerable formal education, and thus Africanization of posts at such levels in the small private and mixed sector cannot be effected as rapidly as the Government would like.

EDUCATIONAL EXPENDITURES

The accelerated educational development in Guinea since Independence is demonstrated by a 269-percent increase in educational expenditures from 1957 to 1963 as compared to a 164-percent increase in total public expenditures for the same period. The portion of the national budget devoted to education was 14.5 percent in 1957 and 20.6 percent in 1963,

[28] U.S. Department of State. *Background Notes: Republic of Guinea.* op. cit. p. 1.

with actual amounts totaling $2,546,800 and $9,425,000, respectively. During 1963 and 1964, it has been estimated that Guinea spent over 4 percent of the gross domestic product on education—more than the target set for 1965 at the 1961 Conference on Education in Addis Ababa.[27]

To the above expenditures must be added the substantial amount of external financing for both capital and recurrent educational costs. The extent to which bilateral and multilateral credits consist of grants as opposed to soft loans is unknown. In any case, substantial amounts of secondary and higher education costs have been borne by external sources under programs entering their terminal phases.

The termination of foreign programs, the decrease in amounts of foreign assistance, the continuous increase in the Guinean teacher force, the pending expansion of secondary-level enrollments, and the converting of second-cycle schools into technical institutions indicate that Guinean educational expenditures may soon reach a critical, if not an intolerable, level.

SUMMARY

Educational development in Guinea has been characterized by nationalization of private education, dramatic enrollment increases at the elementary level, limited attention to secondary education in relation to a premature emphasis upon higher education, and an intent to render as practical as possible education at all levels. Implementing this last policy implies converting all second-cycle (lower secondary) schools either into technical institutions where the shops will produce replacement parts for industry and thereby defray a portion of the operating costs, or (as in the case of the terminal lower secondary rural schools) into schools that eventually will become self-supporting through agricultural production.

The accelerated development of the second-cycle rural schools received priority at the Eighth Party Congress (in December 1963) as a result of the continuous decline of agricultural production and the recent unsatisfactory results of national campaigns to increase rice and cotton production. This Party recommendation illustrates two other tendencies in Guinean educational development. One is the frequent changing of the order of priorities and reforming reforms to the extent that short- and long-range planning and implementation become more complex in an already difficult situation. The second consists of setting targets that cannot be reached.

For example, a major effort within the Ministry of National Education—to convert general second-cycle schools into technical institutions—was interrupted in order to concentrate on the latest Party emphasis, the establishment of rural schools. Further, both of these new types of schools

[27] République de Guinée, Ministère de l'Education Nationale et de la Culture. *Annexe*, No. 3174. May 20, 1963. (Mimeograph)

require extensive facilities, expensive equipment, a substantial flow of supplies, and a variety of specialist teachers. Hence, the target date of 1966 for the initiation of these programs did not provide adequate lead time to achieve effective instruction in either case.

The accelerated development of the rural schools points out the inadequacies of comprehensive planning in terms of manpower needs. Since Independence, agricultural production has declined progressively in spite of the annual increases called for in national plans. The necessary infrastructure of qualified farm labor, junior and senior extension workers, agronomists, and research specialists has been lacking throughout the first decade of independence, but little priority was given to this sector until the decline of foreign aid and fresh setbacks in national production campaigns recently forced a focus on the problem. This led to a shift in priorities and another substantial, rushed project.

Inevitably, the rapid expanding of educational opportunity and the numerous qualitative reforms which cannot be implemented completely within a few years have led to a decline in the quality of instruction. Programs have been started and operated with inadequately prepared teachers, and occasionally with no teachers at all in certain disciplines. With rare exceptions, facilities, equipment, and supplies are inadequate. Educational management is weak, particularly at the second-cycle level. Moreover, in spite of the general objective of adapting education to the practical world of work, education is reported to have remained largely a rote-memory, examination-oriented system. Thus, the outcomes of the teaching-learning process have been poor and uneven, in terms of both the traditional academic education and the new adapted, practical system. For example, the holders of the Guinean *baccalauréat* cannot be considered more qualified than high school graduates in the United States, according to most sources.[28]

In spite of the criticisms and problems, educational development in Guinea represents a serious attempt to evolve a practical educational system related to the local environment. Transitional difficulties are to be expected, but there is a risk in committing scarce human and financial resources to poorly conceived and prepared projects which may flounder and be abandoned.

Indeed, the greatest dilemma in innovating, expanding, and upgrading the educational system lies in the financial requirements. Given the decline of new foreign aid and the pending termination of external support of certain major educational projects on the one hand, and the ambitious plans for expanding and converting secondary education and the evolution of the Polytechnic Institute into a university on the other, the future capital and recurring costs facing Guinea will be formidable. Since only

[28] The Council on Evaluation of Foreign Student Credentials recommended in 1962 that French students having passed the complete *baccalauréat* might be granted up to 1 year of college credit for certain courses.

about a fifth of the estimated school-age population was in school in 1964–65 at a time when over 20 percent of the national budget and over 4 percent of the GDP were committed to education, an impasse between the demand for education and the limitations of future national revenue may lead to a major crisis.

III. The Republic of Mali

SUMMARY OF CHARACTERISTICS

The People and the Land

Of the approximately 4.9 million Malians,[1] more than half are sedentary farmers of several distinct ethnic groups. These include the Bambara (the largest group, numbering a million or more), the Malinké, the Sarakollé (or Soninke), and the Songhai. The two major nomadic groups are the Peul (or Fulani) and the nonnegroid Touareg people. The population growth rate is about 2 percent annually.[2]

French is the official language in Mali. The Semitic-speaking Arabs and the Hamitic-speaking Touaregs use the only other written languages. Most Malians follow Islam; an unknown number of the rural folk are animists; and there are a comparatively small number of Christians.

The population is concentrated mainly in the southern part of the country around the capital city of Bamako and along the Niger River. A landlocked country surrounded by seven other countries, Mali covers 465,000 square miles, an area somewhat smaller than Alaska or about 3 times the size of California. About a third of the country, in the northeast, lies within the Sahara Desert. In most of the southwest, semi-Saharan conditions prevail. The climate and the appearance of much of the country resemble those in the southwestern United States.

The Economy

Cropland is limited, lying primarily along the Niger River. The basic food crops consist of corn, millet, rice, and sorghum. Peanuts and cotton are exported to Europe; cattle, fish, and rice are exported to surrounding countries. Industrial and mineral activities are extremely limited. Thus, production is essentially in the primary sector and at a subsistence level. In 1967 the per capita income based upon the estimated gross national product was about $70.[3]

The Government has a preference for a state-controlled economy; for example, a state agency is responsible for much of the import-export business. In 1962, Mali withdrew from the West African franc zone and

[1] U.S. Department of State. *Background Notes: Republic of Mali* (Publication No. 8056). Washington: Office of Media Services, November 1969. p. 1.
[2] Ibid.
[3] Ibid. p. 3.

established its own currency. This effort at economic independence was abandoned in 1967 when Mali rejoined the zone.

The Government

Until the recent coup d'etat in 1968,[4] the Government, divided into executive, legislative, and judicial branches, received its policy guidelines from the one political party permitted, the *Union Soudanaise*. As in the case of Guinea, ranking Government officials frequently served in high Party posts.

Even though the situation has changed, a review of the former Party role in educational affairs is worthwhile because it is both a part of educational history in Mali and also a sample of similar situations in Guinea, and, to a lesser extent, in Senegal and Ivory Coast.

THE EDUCATIONAL SYSTEM

Policy Development: 1960-68

As in most developing countries, the development and implementation of educational policy has commanded substantial attention of the people. The major nongovernmental channel for affecting the policy process consisted of the single political party, the *Union Soudanaise*. The National Political Bureau of the Party maintained close contact with educational problems and development. For example, representatives of the Bureau assumed important roles in mediating significant complaints of students, parents, and teachers, as well as in the selection of students for domestic and overseas scholarships. Further, local sections of the Party discussed educational matters and fed suggestions to the national level. Other nongovernmental groups which influenced the policy process included the National Union of Malian Workers, of which teachers are members, and the National Women's Union.

Obviously, the executive branch of the Government played a major role in educational policy formulation, with such agencies as the Office of the President, the Council of Ministers, and the Ministries of Plan and of Finances particularly important among those bodies not directly responsible for education. Of course, those organizations responsible for the implementation of educational policy were also active in policy development and modification. (In Mali, most of the formal education endeavor is centralized in the Ministry of Education.) Finally, non-Malian

[4] According to a variety of French newspapers, the coup d'etat of Nov. 19, 1968, occurred because the radical wing of the *Union Soudanaise* gained increasing sympathy from President Keita and efforts were intensified to train a popular militia to defend the socialistic movement. The regular army was reported to oppose the development of the militia and, believing that the majority of people were disillusioned with the Party, arrested the President and radical Party members.

Lt. Moussa Traore became head of state with power invested in a *Comité Militaire de Libération* which was to establish policies for a predominantly civilian cabinet. The new government was reported to be following a more pragmatic policy on political and economic issues.

multilateral and bilateral agencies, through a variety of study and planning missions and concrete educational assistance programs, indirectly affected policy, with all final decisions naturally controlled by the Malians.

In 1962, 2 years after Independence, an educational reform law was passed by the National Assembly, the legislative branch of the Malian Government. The steps that led to the law and the executive decrees that implemented it provide a concrete illustration of the policy-development process.[5]

Educational reform was discussed at the local section level of the *Union Soudanaise* throughout the country. Suggestions emanating from these initial discussions were collected, studied, and prepared in the form of a project by a national technical committee composed of teachers and administrators of the Ministry of National Education. The project was then examined and amended by a Party organization, the Committee for Social and Cultural Action. This Committee included representatives of the executive and legislative branches of the Government, the National Union of Malian Workers, the National Women's Union, and technicians from the Ministry of National Education and from the High Commissariat for Youth. After a further study and revision by the Council of Ministers, the project went to the National Assembly which voted it into law on September 17, 1962. This brief but basic law was followed by a series of executive decrees on October 4, 1962, which detailed its aims and implemental requirements.

This example illustrates the former importance of the Party in the policy process at both the grassroots and national levels. Policy appeared to emanate from the Party membership, particularly from the recommendations of the powerful National Bureau and of the committees working directly on educational matters. While implementation was primarily a governmental concern, the Party participated through its committees and those civil servants who were also Party members.

Basic Objectives of the 1962 Educational Reform

The two fundamental objectives of the reform were to offer mass and quality education adapted to the needs and realities of Mali, and offer an education which decolonizes the minds and rehabilitates Africa and its own values.[6] Education was viewed as a means of achieving cultural independence after political independence, with educational opportunity a right rather than a privilege.

These objectives imply that a civic-minded and productive citizenry should develop, oriented in the socialistic political and economic system:

[5] M. Druel. *Etude sommaire sur la réforme de l'enseignement au Mali et ses conséquences.* Accra: Centre Régional de l'UNESCO pour l'Information et la Recherche Pédagogiques en Afrique, 1966. pp. 2 and 3.

[6] République du Mali, Ministère de l'Education Nationale. *La réforme de l'enseignement au Mali.* Bamako: Imprimerie du Gouvernement, 1965. p. 10.

and further that the new educational system should bridge the gap between the intellectual and the manual worker which the traditional European systems tended to maintain. According to an official document, the reform was inspired by the experiences of socialist countries and former colonies which radically transformed their systems of education. The statement notes also that the entire former system was not systematically nor completely rejected.[7]

The reform's basic objectives caused two fundamental changes in the inherited French system of education. Its structure was reorganized and its curriculum began to be revised progressively.

It is to be noted that private schools have not been nationalized as in Guinea. Their expansion, however, has not been encouraged. In 1966–67 there were in the private sector 53 fundamental education schools (13,010 pupils), two small vocational training centers (178 students), and two *lycées* (270 students).[8]

Structure

The significant structural change, instituted through the Reform Law of September 1962, consisted of establishing a 9-year sequence called fundamental education. The decree on the organization of fundamental education stated that these first 9 years are compulsory, with the reservation that obligatory attendance is limited to the number of existing student places. This reservation was added in recognition that many years of expansion will be required before the compulsory principle may be applied in practice.

The basic structure instituted as a result of the 1962 reform is shown in chart 3 (for school year 1966–67); modifications that occurred during 1968–69 and 1969–70 school years are shown in chart 4. Further revisions may be expected, since the Malians appear to maintain a flexible, pragmatic attitude which tends to encourage adjustment according to experience and needs.

The tendency of the latest changes has been to extend various training cycles. Aside from moving the 6th grade from the second to the first cycle of fundamental education, major modifications include an increase in the duration of all teacher-training programs and secondary programs in administration. New programs include postsecondary studies for public works engineers and agricultural rural engineers (3 years) and for assistant doctors (4 years).

The new structure has definite financial implications. The elementary-secondary period of education was reduced from 13 to 12 years. Thus the Government saves the cost of 1 year for students progressing through the entire elementary-secondary system.

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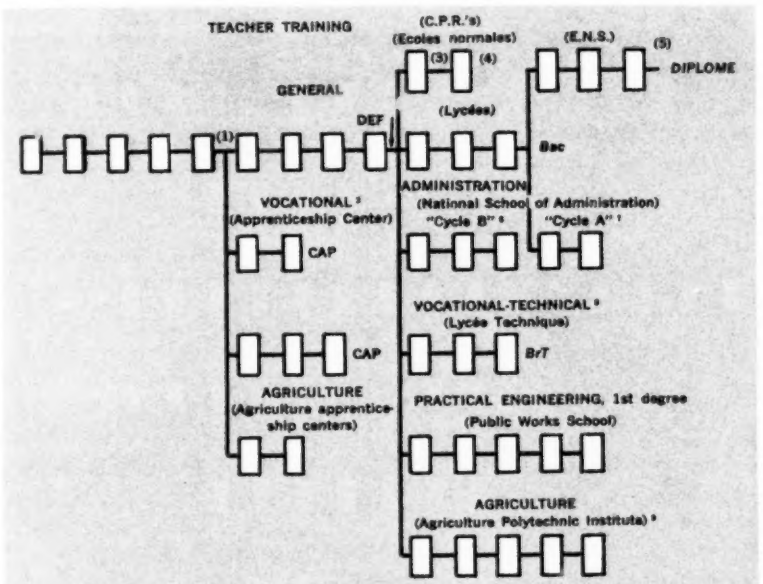
[7] Ibid. p. 31. The countries mentioned were Czechoslovakia, Guinea, Morocco, the People's Republic of China, Tunisia, the U.S.S.R., and Vietnam.

[8] Data provided to the author by the Planning and Statistical Section, Ministry of Education.

Chart 3. Educational structure in Mali: 1966–67

Fundamental															
Age:	First cycle					Second cycle				Secondary			Higher			
6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21



Certificates

KEY:

Bac=baccalauréat
BrT=brevet de technicien
CAP=*certificat d'aptitude professionelle*
DEF=*diplôme d'études fondamentales*

Institutions

C.P.R.'s=*centres pédagogiques régionnaux*
E.N.S.=Ecole Normale Supérieure

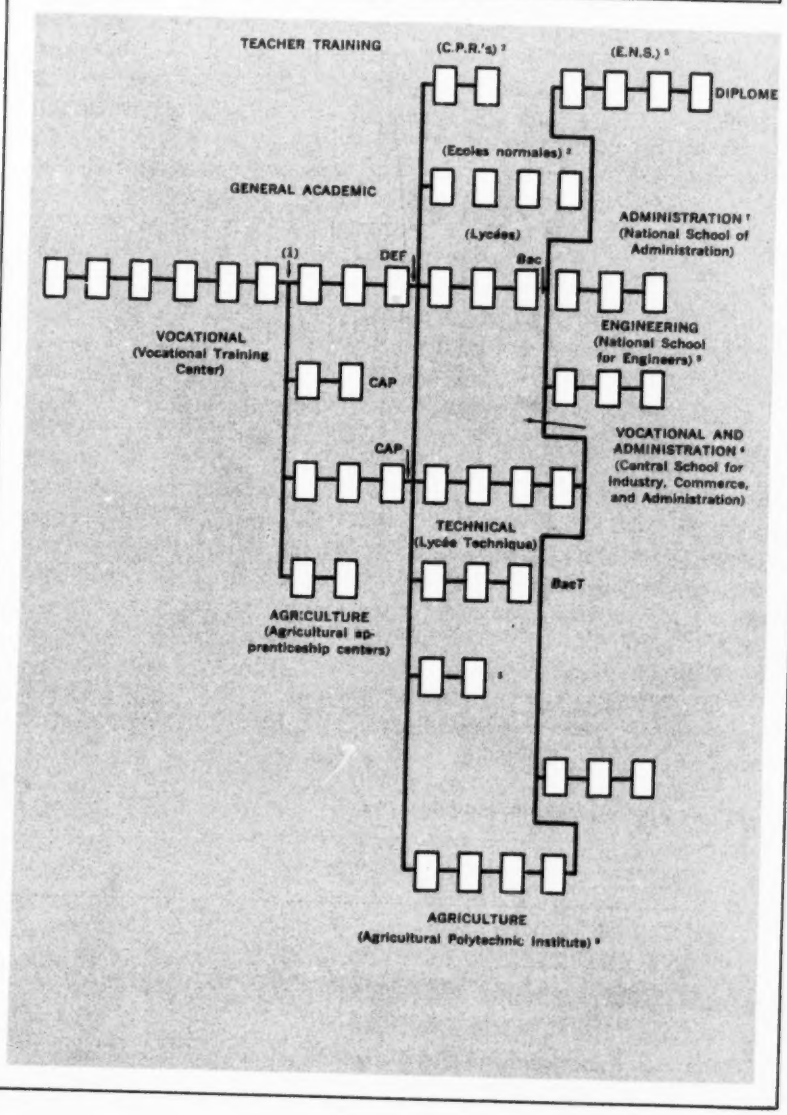
[1] Orientation year in which students are selected for the 2d cycle.
[2] Of 2 or 3 years, depending upon specialization.
[3] 1st-cycle teachers.
[4] 2d-cycle teachers.
[5] Secondary teachers.
[6] Junior administrators.
[7] Senior administrators.
[8] For simplification, this track represents all 3-year secondary technical training, including animal husbandry, art, and health.
[9] A 3-year course produces technicians; a 5-year course produces agronomists and research workers.

SOURCE: Republic of Mali, Ministry of National Education. (Author's interviews with Ministry officials.)

Chart 4. Educational structure in Mali, as modified: 1969–70

[Major changes from structure in chart 3 are indicated in the footnotes]

Fundamental																				
Age:	First cycle						Second cycle			Secondary				Higher						
	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21				



KEY:

Certificates

Bac=*baccalauréat*
BacT=*baccalauréat technique*
CAP=*certificat d'aptitude professionelle*
DCPR=*diplôme des centres pédagogiques*
DEF=*diplôme d'études fondamentales*

Institutions

C.P.R.'s=*centres pédagogiques régionnaux*
E.N.S.=Ecole Normale Supérieure

Major Modifications

[1] Grade 6 becomes the terminal grade of the 1st cycle (orientation year).
[2] 1st-cycle teacher training is extended 1 year.
[3] 2d-cycle teacher training is extended 2 years.
[4] Junior (1) agricultural/rural engineers, (2) public works engineers, (3) administrators, and (4) art students receive 4-year training at different institutions.
[5] A 2-year training course is offered for future postal employees.
[6] Secondary teacher training is extended 1 year. Assistant doctors also are offered a 4-year program.
[7] Senior administrator training is extended 1 year.
[8] The National School of Engineers is upgraded to a postsecondary institution with a 3-year program.
[9] Courses of 3 and 4 years are offered for junior and senior technicians and 3-year post-secondary courses for rural engineers and agronomists.

Source: République du Mali, Ministère de l'Education Nationale, de la Jeunesse et des Sports. *Rapport sur le mouvement éducatif dans la République du Mali pendant l'année scolaire 1968/69.* Bamako, December 1969. pp. 1–11. (Mimeograph)

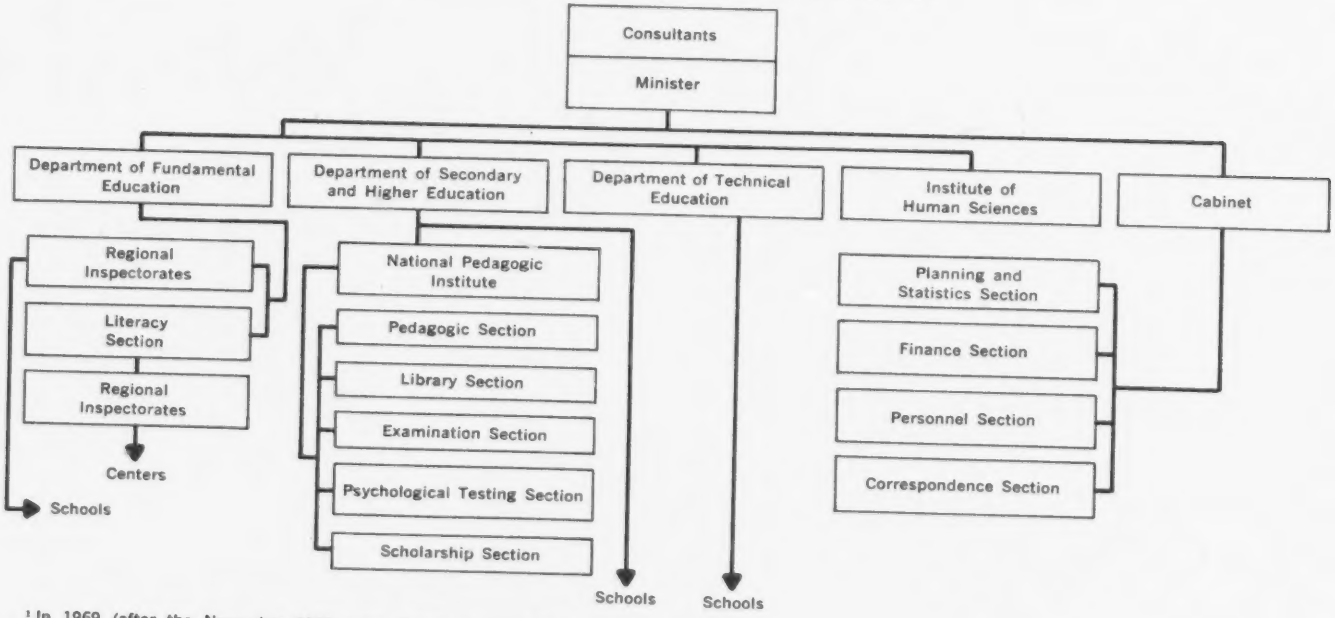
Additional financial savings were accomplished by breaking up the old secondary structure which provided boarding facilities for 7 years. The capital and recurrent costs for boarding facilities will be substantially less, for the new system will provide 9 years of fundamental education without boarding facilities and 3 years of secondary with them, rather than 6 years of elementary without facilities and 7 years of secondary with them.

Administration

The Ministry of National Education is responsible for most types of education including fundamental, general secondary, vocational-technical, academic higher education, literacy, and extension education. Other ministries holding responsibilities of an educational nature include the Ministry of Development, for most types of agricultural education; the Ministry of Health, for training sanitary agents, social aids, and assistant doctors; the Civil Service Ministry, for educating public administrators at the National School of Administration; and (until 1969) the High Commissariat for Youth and Sports, for producing physical education instructors and for special youth training at regional camps. According to the reform law, these latter agencies are required to coordinate their educational activities with the Ministry of National Education.

As a result of the November 1968 coup d'etat, responsibility for youth and sports activities has been placed with the Ministry of National Education, which now is known as the Ministry of National Education, Youth and Sports (Le Ministère de l'Education Nationale, de la Jeunesse et des

Chart 5. Ministry of National Education in Mali: 1966–67



[1] In 1969 (after the November 1968 coup d'etat), responsibility for Youth and Sports activities was transferred to the Ministry of National Education, which then became the Ministry of National Education, of Youth and Sports (*Le Ministère de l'Education Nationale, de la Jeunesse et des Sports*).

Source: Mali, Ministry of National Education.

Sports). However, no information is available to the author concerning organizational modifications within the Ministry which this change may have brought about.

The Ministry of National Education.—Under the colonial system, the Academic Inspectorate directed education. With Independence, it was replaced by the Ministry of National Education. As shown in chart 5, the Ministry before 1969 was headed by the Minister and consisted of two basic components: (1) the *administrative* element with four sections under the cabinet that dealt with planning and statistics, finance, personnel, and correspondence; and (2) the *professional* element with the three Departments of Fundamental, Secondary and Higher, and Technical Education and also the Institute of Human Sciences. Because most secondary and higher level schools are concentrated in the capital city of Bamako, only the Department of Fundamental Education supervised schools in every corner of the country. Control was exercised through 10 regional inspectorates. Regional offices of literacy education frequently worked in close collaboration with the regional inspectorates.

The Ministry's organizational framework is not static; changes occur as qualified manpower becomes available. For example, until 1965 vocational-technical education was the responsibility of the Director of Secondary and Higher Education. The return from France of a highly qualified Malian permitted the establishment of the new department.

The National Pedagogic Institute (N.P.I.).—The Educational Reform Act of 1962 underlined a major need for curriculum revision and for the preparation of textbooks consistent with the concept of African socialism. Since these responsibilities fall primarily to the National Pedagogic Institute, a brief description of the organization and some of its activities is pertinent.

Established in 1964 on the French model, the N.P.I. is concerned with educational research and the provision of other technical services.

Although under the administration of the Director of Secondary and Higher Education, the N.P.I. has its own director who supervises several sections dealing with (1) the curriculum, its production, and its distribution; (2) examinations; (3) library development; (4) psychological guidance and testing; and (5) scholarships.

Although each section is headed by a Malian, some positions are filled by non-Malians, as part of an effort by UNESCO, France, and the United States to alleviate the lack of indigenous qualified manpower through technical assistance. Through these same sources, the Ministry of Education has received sufficient equipment to operate a reproduction and print shop capable of producing prototype textbooks and teaching guides on a small scale as soon as certain inadequacies are overcome. As of the end of 1966, this latter operation suffered from a shortage of operating and managerial personnel, spare parts, supplies, and adequate electrical power which limited its productivity to various brochures for the literacy

campaign and reports for the Ministry. With the country's two other printing plants utilized to capacity, the means of mass-producing textbooks would depend upon completing a new facility.

By the end of 1966, two textbooks had been published, with several others in preparation. However, since technical assistance personnel estimate a need for a minimum of 65 texts totaling almost one and a half million books for the first 9 grades, the task seems formidable for an operation so limited in human and financial resources.

These limitations are illustrated further by the curriculum development activities, which include the writing of textbook manuscripts. The curriculum development section, staffed by a limited number of Malian and foreign technical assistance personnel, has been primarily preparing information bulletins that list main items of content to be covered by the teacher in a given subject for 1 year. Occasionally, these bulletins have been accompanied by a supplement which provides the teacher with a limited amount of factual background pertinent to content outline.

Such activity constitutes an effort to align the scope and sequence of subject matter with the program or course of study decreed in 1962 and only slightly modified since that time. However, unless such activity is followed by a coordinated program of actual textbook preparation and preservice and inservice teacher education, its effectiveness may be extremely limited.

From this brief discussion of certain aspects of the N.P.I.'s functions and problems, it becomes obvious that the Institute plays a key role in implementing the reforms of 1962 and that, in order to do so, it will require substantial numbers of skilled personnel and funds.

FUNDAMENTAL EDUCATION

Structure

Under the 1962 reform, the one-cycle elementary and two-cycle secondary system was replaced by the two-cycle fundamental education and one-cycle secondary system shown in chart 3 and, as recently modified, in chart 4.

Promotion through the 9 grades has been based upon the average of the grades received by a pupil. Formerly, the 5th—and as of 1969–70, the 6th—grade served as an orientation year when the pupil was observed closely by a group of teachers and either guided into the general or vocational sections of the second cycle or had his school career terminated. However, this type of selection was to be replaced by an examination at the end of the first cycle, as of June 1970.[9]

Vocational schools offering 2- and 3-year courses after the first cycle

[9] République du Mali, Ministère de l'Education Nationale, de la Jeunesse et des Sports. *Rapport sur le mouvement éducatif dans la République du Mali pendant l'anneé scolaire 1968/69*. Bamako, December 1969. p. 3.

of fundamental education are separate from the general second-cycle schools. They may offer either 2- or 3-year courses or both.

After a student satisfactorily completes the 9 years of fundamental education, he receives the *diplome d'études fondamentales* (DEF).

Curriculum

The program of studies was affected by the 1962 structural change. It was the 1st year of schooling that was abandoned. Known as the *cours d'initiation,* this 1st year supplemented the typical French structure; it was added in Africa to compensate for having a language of instruction different from the mother tongue. Because this introductory year was eliminated (and the elementary-secondary cycle thereby shortened from 13 to 12 years), it was deemed necessary to increase the number of hours in the school week. Whereas the number of hours has progressively increased from 24½ in grade 1 to 30 in grade 9, after the structural change it was set at 32½ hours for each of the 9 grades. Table 2 shows the program of studies for fundamental education in 1966–67.

Table 2. Number of hours per week, per subject, in each year of fundamental education in Mali: 1966–67

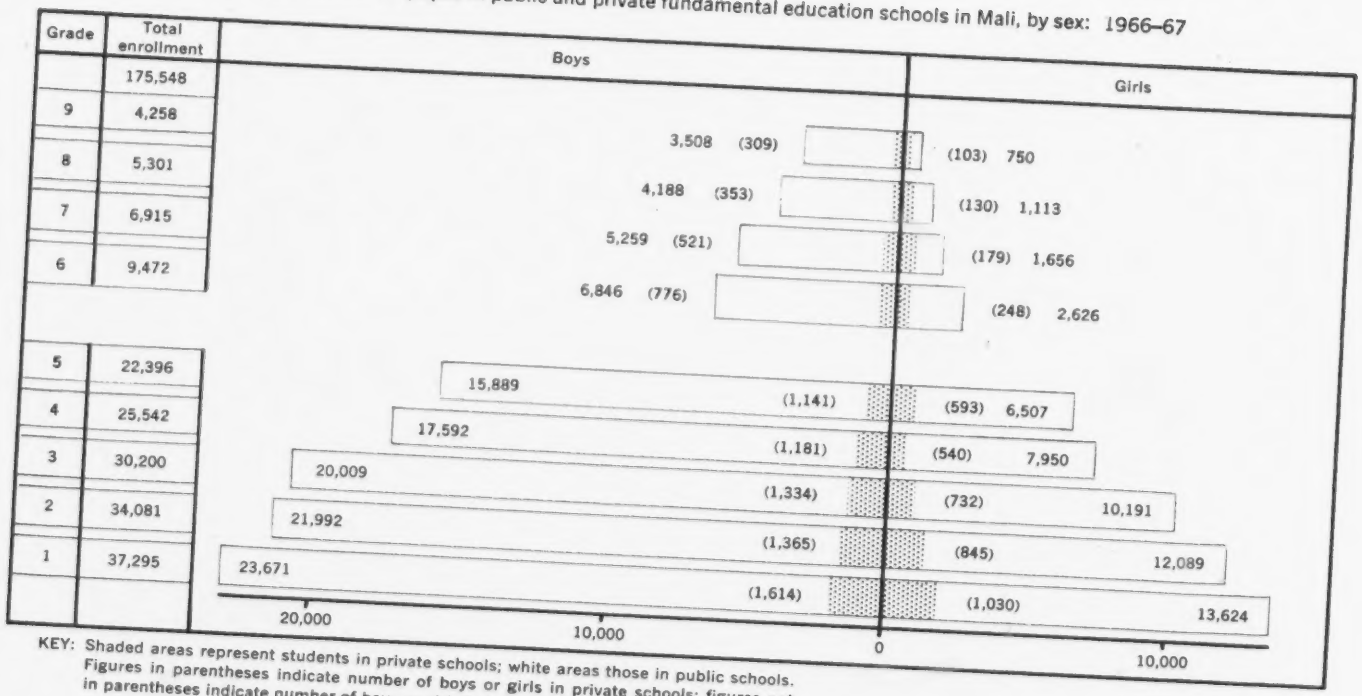
Subject [1]	First cycle					Second cycle			
	1	2	3	4	5	6	7	8	9
Total	32½	32½	32½	32½	32½	32½	32½	32½	32½
Civics	1	1	1	1	1	1	1	1	1
Drawing	1	1	½	½	½	1	1	1	1
Foreign language	.....	.....	.....	.....	.....	4	4	3	3
French	7	7	6	6	6	6	6	6	6
Geography	.....	.....	1	1	1	1½	1½	1½	1½
History	.....	.....	½	1	1	1½	1½	1½	1½
Manual arts	1	1	1	1	½	2	2	2	2
Mathematics	4½	4½	4½	4½	6	5	5	5	5
Music	1	1	1	1	1	1	1	1	1
Natural science	1	½	1½	1½	4	1½	1½	2	2
Physical education	1½	1½	2	2	2	2	2	2	2
Physical sciences	.....	.....	.....	.....	.....	1½	1½	2	2
Reading	9	9	7	7	4	.....	.....	.....	.....
Writing	2½	2½	2	1½	½	.....	.....	.....	.....
Practical work	½	1	2	2	2½	.....	.....	.....	.....
Recreation	2½	2½	2½	2½	2½	2½	2½	2½	2½
Supervised study	.....	.....	.....	.....	.....	2	2	2	2

[1] Certain schools, known as "medersas," include Arabic, beginning in grade 1.

Source: M. Druel. *Etude sommaire sur la réforme de l'enseignement au Mali et ses conséquences.* Centre regional de l'UNESCO pour l'Information et la Recherche Pédagogiques en Afrique, 1966. p. 10.

The new Malian program allocates 4½ more hours weekly to the skill disciplines of language arts and arithmetic in the first 2 years than did the former program. Also, it introduces elementary natural science in those first 2 years, whereas the former program did not. Further, it allows more time for history, geography, and the sciences in grades 3 through 5 than the former program did in grades 3 through 6.

Chart 6. Number of pupils in public and private fundamental education schools in Mali, by sex: 1966–67



KEY: Shaded areas represent students in private schools; white areas those in public schools. Figures in parentheses indicate number of boys or girls in private schools; figures not in parentheses indicate number of boys or girls in both private and public schools.

Source: République du Mali, Ministère du Plan. *Annuaire statistique 1967*. Bamako, June 1968. p. 50.

From the qualitative standpoint, two characteristics of the new curriculum for grades 1 to 9 may be noted. First, the content has been adapted in such subjects as history, geography, and natural sciences to emphasize Mali and Africa instead of France and Europe. Secondly, the French tradition persists in the encyclopedic coverage of content and in the sequence of studies in the sciences (where most changes have consisted of replacing French flora and fauna by those of West Africa). Further, in spite of a new emphasis upon practical work and a plan to equip fundamental schools with workshops, with home economics rooms, and, in rural areas, with farming or fishing facilities, the instruction remains intellectual in character and memorization is still the general learning method.

Enrollments in public and private fundamental education schools are shown for 1966–67 in chart 6.

Schools and Equipment

The number of classes increased from 1,920 in 1962 to 3,065 in 1965, and to 5,040 in 1969.[10] Construction costs are shared by the National and Regional Governments; their contributions approximate $1,300 and $1,000 per classroom, respectively.[11] The local communities provide the labor. The initiation of fundamental education—with its 9 years under one roof—has occurred in the first instance in urban areas where the facilities of large elementary schools have been adequate to accommodate the new system with only some displacement of the local elementary classes. Elsewhere, construction programs have been initiated to add to local school facilities; the more remote rural schools are generally the last to acquire additions. Existing classroom and boarding facilities of pre-1962 first-cycle secondary education (grades 7–9) are used for the new secondary education cycle (grades 10–12) and for normal education. Thus, student places for secondary education are increased without an immediate need for extensive building at the secondary level.

As one would expect, the relatively rapid increase of enrollments has not been accompanied by an equivalent increase in educational quality. Obviously, training qualified teachers and producing instructional materials have lagged behind the need caused by the influx of pupils. For example, one major rural school (visited by the author) located in a remote region of the country had an average of one textbook per 15 pupils, a few old maps and charts, and a well-worn small blackboard in each classroom. In one of the major rural cities of Mali, the author found over 50 1st-grade pupils being taught under similar physical conditions although more textbooks were available.

In general, the physical facilities and equipment of fundamental edu-

[10] In 1969–70, 2,207 (or 43 percent) of the 5,040 classrooms were classified as provisional. République du Mali, Ministère de l'Education, de la Jeunesse et des Sports. op. cit. p. 11.

[11] Construction costs per classroom were said to vary from about $2,000 to $12,000 in 1964–65, depending upon the location and the type of construction. M. Druel. op. cit. p. 26.

cation schools are poor by Western standards. The schools in the large population centers are usually better equipped than those in the rural areas. Textbooks and individual school supplies, purchased by the pupils, are found more readily in the cities. Private schools, few in number but supported by external funds and small tuition fees in most cases, generally fare better than the public schools.

School furniture for first-cycle classrooms is purchased through regional budgets and for second-cycle classrooms through the national budget. The cost is about $800 per room. The plans to include science laboratories, workshops, and home economics rooms in fundamental schools have not been implemented as yet both because of cost and because the primary need is for basic classrooms. The latter are being constructed at an approximate rate of 400 per year.

GENERAL SECONDARY EDUCATION

Under the new structure, Malian general secondary education consists of the 10th, 11th, and 12th years. (In the former French-type structure, it consisted of the 7th through the 13th years.) The former French *baccalauréat* received at the end of general secondary education has been replaced by a Malian *baccalauréat* which is recognized by the French Government as equivalent to the French one. The examination for the *baccaleauréat* is given in two parts, one before and one after the 12th grade. The program of studies retains its French character.

To enter general secondary education, a student must hold the *diplôme d'études fondamentales* (DEF). His entrance is further determined by a national guidance committee which bases its choice upon a candidate's age, his scholastic record, and the results of an aptitude test. The number of admissions is limited by the number of student places available in the secondary schools.

A total of 1,325 students were enrolled in 1966–67 as compared with 434 in 1962–63. Of the 1,325, 1,065 were boys and 260 were girls; and there were 270 in private schools.[12] The 1969–70 total was reported as 2,900, of which 460 were in private schools.[13]

Five secondary schools or *lycées* offering general secondary education exist in or around Bamako, the capital city. Two are private and three public. One of the latter is a large new *lycée* with a capacity for 1200 students. Financed by the European Development Fund, the new structure was opened in the fall of 1966 in the suburb called Badalabougou. Plans exist to transform five former "colleges" into regional *lycées* in the cities of Gao, Kayes, Mopti, Segou, and Sikasso.

A student may enter one of several programs of study—exact sc[illegible],

[12] Republic of Mali, Ministry of National Education, Planning and Statistical Section.

[13] République du Mali, Ministère de l'Education Nationale, de la Jeunesse et des Sports. *Project d'un plan de développement de l'enseignement au Mali pour la période 1970–1972.* Bamako, November 1969. (Mimeograph)

biological science, classical letters, or modern letters. Which program he enters is determined by his DEF examination, his aptitude test, and his own preference. Table 3 shows the number of hours in each subject of the new general secondary programs in 1966–67.

TEACHER TRAINING

The training of teachers corresponds to the three pre-university levels of education. A 1-year program for first-cycle teachers (of grades 1 to 5) was offered—and since 1969 a 2-year program has been offered—at seven regional pedagogical centers *(centres pédagogiques régionnaux—C.P.R.'s)* for holders of the DEF and for others through a competitive examination. Second-cycle teachers (of grades 6 to 9) received 2 years—and since 1969 have received 4 years—of training at normal schools *(écoles normales)* with entrance based upon a competitive examination open to holders of the DEF and without examination to those who have passed the first part of the *baccalauréat* examination. Lastly, secondary teachers are prepared at the Higher Teacher-Training College (Ecole Normale Supérieure—E.N.S.) with admission limited to holders of the *baccalauréat*.[14] In addition, a 1-year school to train home economics teachers for the first cycle of fundamental education has been established at Segou; it admits students who have completed between 6 and 9 grades, but eventually will be open only to holders of the DEF.

Charts 3 and 4 show the major programs in teacher-training institutes.

Regional Pedagogical Centers

The program of studies at the regional pedagogical centers (C.P.R.'s) includes general education, pedagogy, child psychology, school legislation, and student teaching. Eventually, each successful candidate will receive a *diplôme des centres pédagogiques régionnaux* (DCPR) and following successful teaching experience receive the *certificat élémentaire d'aptitude pédagogique* (CEAP) and the title *maître du premier cycle* (first-cycle teacher). However, through 1966–67, the pressing need for teachers led to recruiting students below the DEF (9 years of schooling) level with the result that graduates have been placed in three temporary categories depending upon their scholastic achievement—assistant teachers, monitors, and auxiliary monitors.

A total of 10 regional centers have been planned to produce the required number of first-cycle teachers. By 1966–67, seven of these centers were operational. The number of students increased from 193 in 1962–63 to 610 in 1964–65 and 794 in 1969–70.[15]

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[14] For more information, see section on Higher Education in this chapter.

[15] Data for 1962–63, 1964–65, and 1966–67 from: Republic of Mali, Ministry of National Education, Planning and Statistical Section.

Data for 1969–70 from: République du Mali, Ministère de l'Education Nationale, de la Jeunesse et des Sports. *Projet d'un plan de développement de l'enseignement au Mali pour la période 1970–1972.* loc. cit. p. 10.

Table 3. Number of hours per week, per subject, by year[1] of general secondary education and program in Mali: 1966–67

Subject	1st year				2d year				3d year			
	Science		Letters		Science		Letters		Science		Letters	
	Exact	Biological	Classical	Modern	Exact	Biological	Classical	Modern	Exact	Biological	Classical	Modern
1	2	3	4	5	6	7	8	9	10	11	12	13
Total	*30½*	*30½*	*30*	*30*	*32*	*32*	*30*	*29*	*34*	*33*	*34*	*33*
Civics	1	1	1	1	1	1	1	.....	1	1	1	1
Drawing	1	1	½	½	1	1	.....	.....	1	1	½	½
Foreign language (a)	2	2	3	3	2	2	4	3	1	1	2	3
Foreign language (b)	2	2	.....	5	2	2	.....	5	1	1	.....	5
French	4	4	5	6	4	4	5	6	.....	.....	.....	.....
Geography	1½	1½	2	2	1½	1½	2	2½	1½	1½	2	2½
Greek	.....	.....	4	.....	.....	.....	4	.....	.....	.....	4	.....
History	1½	1½	2	2	1½	1½	2	2½	1½	1½	2	2½
Latin	.....	.....	5	.....	.....	.....	5	.....	.....	.....	4	.....
Manual arts	1	1	1	1	1	1	1	1	1	1	1	1
Mathematics	7	4	2	3	7	5	2	3	10	5	2	2
Music[2]	½	½	½	½	1	1	.....	.....	1	1	½	½
Natural science	1	6	.....	.....	1	5	.....	.....	1	7	2	2
Physical education	2	2	2	2	2	2	2	2	2	2	2	2
Physical science	6	4	2	4	7	5	2	4	8	5	2	2
Philosophy	.....	.....	.....	.....	.....	.....	.....	.....	4	5	9	9

[1] These are the 10th, 11th, and 12th years of schooling.
[2] Music is optional in the 2nd year and in all but the biological program of the 3d year. The number of hours indicated for music is included in the total for the
Source: Republic of Mali, Ministry of National Education.

Normal Schools

The 4-year training program in normal schools for second-cycle teachers includes five different programs in general education related to the teaching specialty and professional training similar to that offered for first-cycle teachers, with the addition of physical education and art education. In other words, the teachers for grades 6 through 9 are semispecialized and major in one of the following five areas: foreign language, French, history and geography, mathematics and physical science, and chemistry and natural science.

There are two normal schools that prepare second-cycle teachers. One is in Bamako and the other has been moved from Katibougou to the new facilities constructed by the European Development Fund at Badalagougou, a suburb of the capital city of Bamako. The program had an enrollment of 136 in 1961–62, 267 in 1964–65, and 920 in 1969–70.[18]

Other Programs

The third major teacher-training program prepares secondary teachers and will be discussed under the topic of higher education.

The relatively minor 1-year program in Segou for training teachers of first-cycle home economics and other practical subjects offers, in addition to general education, courses in animal husbandry, gardening, health education, and home economics.

In addition to preservice training, 1-month summer inservice programs are conducted to upgrade both first- and second-cycle teachers.

VOCATIONAL-TECHNICAL EDUCATION

Before the 1962 Reform

There being no demand for industrial workers and technicians before the 1962 reform, formal vocational-technical training was limited largely to three public institutions—(1) a "college" which offered a *brevet élémentaire industriel* (BEI) in 6 years after graduation from elementary school; (2) the Apprenticeship Center, which offered a *certificat d'aptitude professionelle* (CAP) in 3 years after graduation from elementary school; and (3) the Public Works School, which prepared technicians for public works, the railway, and the topographical service in 3 to 4 years after completion of the 4 years of the former first cycle of secondary education. In addition, a small vocational school was operated by the Catholic Mission and a small apprenticeship center was conducted in conjunction with the Office du Niger. Lastly, a 3-year course in traditional handicrafts was offered at the Maison des Artisans Maliens.

[18] Data for 1961–62 and 1964–65 from: Republic of Mali, Ministry of National Education, Planning and Statistical Section.

Data for 1969–70 from: République du Mali, Ministère de l'Education Nationale, et de la Jeunesse et des Sports. *Projet d'un plan de développement de l'enseignement au Mali pour la période 1970–1972*. loc. cit. Table 10.

After the 1962 Reform

The concept of vocational-technical education was expanded after the 1962 reform to include the preparation of skilled workers and three groups of middle-level personnel—technicians, practical or junior engineers (first degree), and, eventually, theoretical or senior engineers (second degree).

All of the pre-1962 institutions continue to operate, and have received major improvements and increased enrollments.

The "college" was upgraded into the Lycée Technique, offering a *brevet de technicien* in a 3-year program after 9 years of fundamental education. Through U.S. assistance in collaboration with the American ORT Federation,[17] various new facilities and equipment were added, the expatriate teaching staff was increased, and the training of Malian replacements was undertaken. The program of studies was reoriented to include more theory, a common first year, and more sophisticated specializations such as diesel mechanics, electronics, and refrigeration. The method of instruction emphasizes more active student participation and extensive use of audiovisual aids. Periods of practical work experience with industry have been incorporated in the programs.

In 1969, the Lycée Technique began to phase out its *brevet de technicien* courses in order to concentrate upon preparing students in the more theoretical courses leading to the *baccalauréat technique*. The former more practical courses (both industrial and commercial) were being transferred to a new school offering 4-year courses after the DEF, the Central School for Industry, Commerce, and Administration. Established in 1969, the new school will also absorb the courses for junior administrators ("cycle B") shown on chart 3.

The Apprenticeship Center has received major improvements in facilities and equipment through U.S.S.R. assistance. Known presently as the Vocational Training Center, this institution, in 2 to 3 years after the first cycle of fundamental education, prepares skilled workers in carpentry, electricity, and the various skills of metal technology. They receive the CAP. Russian instructors are now being replaced by Malians who have received 4 to 5 years of additional training in the U.S.S.R.

The program of the Public Works School, presently called the National School for Engineers, was altered in 1963 and again in 1969. In 1963, the training of technicians in 3 years was delegated to the Lycée Technique and the training of practical engineers in 5 years instituted. The engineering program offered four specializations—cartography, geology, public works, and topography. It terminated in 1969 when the National School for Engineers was upgraded to a postsecondary institution.

Enrollments

Total enrollments in vocational-technical education in 1966–67

[17] American Organization of Rehabilitation Through Training Federation.

amounted to 1,923. Included were 178 trainees in two private vocational training centers staffed by 15 instructors.[18] Whereas enrollment increases in this type of education have been relatively moderate, the improvement in quality of instruction in the past few years has been significant.

Problems

Among the major problems for this type of education has been the lack of studies to specify qualitative and quantitative manpower requirements and thus to insure placement of graduates. This has been felt particularly at the CAP level where graduates lack sufficient general education readily to assume administrative positions outside their vocation. As a result, in 1966–67 efforts at the Vocational Training Center (the former Apprenticeship Center) were initiated to train skilled workers with more occupational mobility. This problem of placement is reported also to exist at the technician's level for auto mechanics.

The language barrier has handicapped instruction at the Vocational Training Center where Russian teachers have had to rely upon Russian women translators without a technical background. This problem has been compounded by the necessity of the teachers to adjust instruction to the level of the Malian students without either direct communication with the students or adequate knowledge of CAP-level textbooks (although some of these have been translated into Russian for the instructors' benefit). Nevertheless, other expatriate technical education experts have described the quality of the Russian instructors as good and the program as satisfactory in spite of the problems. Enrollments at the Center increased from 120 students in 1962–63 to 344 in 1966–67 (with 54 instructors). More than 40 of the teachers were expatriates; Malians provided instruction in general education subjects such as French and civics.

The future of vocational and technical education in Mali is clouded by the pending termination of the U.S. and U.S.S.R. assistance programs with their substantial financial and human resource inputs. In order to strengthen administration of this critical educational area, a separate Department of Technical Education was established within the Ministry of National Education in 1966, upon the return of a competent and well-trained Malian to direct it. Assuming the Malian counterparts for the expatriate instructors perform satisfactorily, there still exists the problem of financing the heavy recurrent expenditures necessary to assure the quality of instructional programs. Because of the limited, if unspecified, manpower needs in the industrial sector and the high per pupil costs of this type of education, a prudent policy concerning quantitative expansion appears wise.

AGRICULTURAL EDUCATION

As a country primarily dependent upon crop and animal production for

[18] Republic of Mali, Ministry of National Education, Planning and Statistical Section.

national revenue, Mali has designed a comprehensive program in agricultural education. Implementation of this program has been limited and delayed by funding problems.

At the lowest level, 150 seasonal agricultural schools, more recently termed "rural promotion centers," have been planned. Four of these schools, with 15 to 20 students, were operative in 1961. Through the assistance of the European Development Fund, beginning in 1963, another 50 schools were constructed. These small, local units provide both literacy and agricultural training over a period of a few months with the objective of training grassroots producers who will, in turn improve output in their local communities. Two teachers are stationed at each center and visiting authorities assist and supervise operations.

At the next level, agricultural apprenticeship centers have been formed. In a 2-year program for first-cycle school leavers, these centers train monitors to work at the local level within the Government service. In 1963–64, a total of 142 students were enrolled in the two schools at M'Pessoba and Samanko.

Secondary-level education in agriculture has been assured through the Lycée Agricole de Katibougou, where 1963–64 enrollments included 49 students in the first 2 years. Eighteen of these students were from Niger and Upper Volta.

During the 1965–66 school year, a new agricultural polytechnic institute was completed under a United Nations Special Fund project commenced in 1963. This school began to produce agronomists and research workers in a 5-year course and technicians in a 3-year course after the 9th grade. As of 1969–70, it offered 3- and 4-year courses after the 9th grade for junior and senior technicians, respectively, and 3-year post-secondary courses for rural engineers and agronomists.

Because of the importance of animal production, secondary-level schools for animal husbandry assistants and assistant veterinarians have been operative for several years. The former school, with a student body from eight other Francophone African states, has a 3-year program following 9 years of education. However, in 10 years (1954–64) only 20 of 121 graduates were Malians. The veterinarian school has increased its enrollments from 13 in 1962 to 35 in 1964, but considering the importance of cattle production to the Malian economy and the poor condition of the stock, the efforts are minimal.

HEALTH AND WELFARE OCCUPATIONAL EDUCATION

The Ministry of Public Health operates three schools to prepare junior and senior technicians in the fields of health and welfare. Two of these schools, a nursing school and a school for social workers, accept students who have completed only the first cycle of fundamental education and passed a competitive examination; the third, a secondary-level school,

accepts either DEF holders or graduates of the other two schools after 3 years of experience and a competitive examination. The nursing school admits women over 17½ years old; the school for social workers admits those between 16 and 25; and the secondary school admits those between 18 and 25 (although the upper age limit is waived for an applicant who scores high on the competitive entrance examination).

The nursing school, Ecole Primaire de la Santé, offers a 3-year course. The common 1st year is followed by an examination; the 2d and 3d years are divided into three specializations—hospital nursing, laboratory and pharmacy (to produce technicians), and obstetrics.

The social workers school, Ecole des Aides Sociales, offers a 3-year course followed by practical training at a home economics training center. Three months after entrance, a student is given an aptitude test; at the end of the 1st and 2d years, he must take examinations; and at the end of the 3d year, a final examination.

The secondary school, Ecole Secondaire de la Santé, trains four types of technicians—medical secretaries, midwives, nurses, and social workers. All courses last for 3 years except the nursing course, which is of 2 years' duration. The social workers are also qualified as nurses during their studies. Examinations are given at the end of each year.

Enrollments in the three schools in 1964–65 totaled 175, 37, and 78, respectively. In the various specializations mentioned above, male students are admitted only to the courses that train them as nurses or laboratory/pharmacy technicians, where in 1964–65 they outnumbered the female students.[19]

HIGHER EDUCATION

Higher education has been provided for several years at the Higher Teacher-Training College (E.N.S.) and at the National School of Administration. Enrollments totaled 309 students in 1966–67; of these, 250 were boys and 59 were girls. These institutions were joined by the Agricultural Polytechnic Institute which opened in the fall of 1965 with a 5-year program for agronomists. Enrollments totaled 250 students, but the vast majority of these were pursuing 3-year courses at the secondary school incorporated into the Institute.

In 1969, the Agricultural Polytechnic Institute's secondary-level programs were modified to 3- or 4-year courses while a postsecondary course of 3 years was initiated. Other postsecondary schools activated in 1969 include a medical school (offering a 4-year course for assistant doctors) and the National School for Engineers (offering a 3-year program for theoretical or senior engineers). With the exception of the Institute, all these professional schools are located in the capital city of Bamako and will eventually form the nucleus of a national university.

[19] Republic of Mali, Ministry of National Education, Planning and Statistical Section.

Higher Teacher-Training College.—The former 3-year program of studies at the Higher Teacher-Training College was similar to the French teacher-training program. The 1st year, comparable to that in the French faculty of letters and science, offered four different fields of study: literature, mathematics, natural science, and physical science. The 2d and 3d years were divided into seven specializations: foreign language, history and geography, mathematics, modern letters, natural and earth sciences, philosophy, and physical science. The level of the diploma is said to be comparable to the French *licence ès-sciences* and *licence ès-lettres*. The preparation of secondary school teachers in such discipline as art, classical languages, music, and physical education has not been planned for inclusion at the College. The first graduating class in 1965 numbered 15 students.

In 1967–68, the program was extended to 4 years, but the areas of specialization after the 1st year have been limited to five (biological sciences, English language and literature, history and geography, mathematics, and philosophy). It is anticipated that the sections of specialization will be changed according to teacher demand.

National School of Administration.—Formerly, the National School of Administration offered a 2-year program at the postsecondary level, called "cycle A" to distinguish it from the secondary-level course "cycle B" (since 1969 offered at the Central School for Industry, Commerce, and Administration). Upon completion of the postsecondary course, students were given supplementary training at the Institut d'Outre-Mer in Paris. Graduates then became administrators in the Government service. In 1968–69, the course was extended to 3 years. The four sections of specialization are business, economics, general administration, and law and social science. The School also offers inservice training courses for civil servants.

The majority of teachers at both the Higher Teacher-Training College and the National School of Administration consist of expatriates provided through both multilateral and bilateral sources. In 1964–65, the two schools had 51 teachers and 134 students—a teacher-student ratio of 1:3.

STUDY ABROAD

The number of Malians studying outside the country amounted to 593, 728, 698, and 773 for the years 1962, 1963, 1964, and 1965, respectively.[20] Of the 698 students in 1964, 405 were taking courses at the higher education level and 293 at the secondary technical education level. The ratio of those students taking short training courses as opposed to those taking longer educational programs terminating in degrees is not known; however,

[20] These statistics were taken from a mimeographed document published by the Ministry of National Education in 1965. (They differ somewhat for the years 1962 and 1965 from those found in *Annuaire statistique 1965*, published by the Ministry of Plan.) In 1966–67, 810 were studying abroad, according to the Ministry of Plan's *Annuaire statistique 1967*, p. 49.

considering the relatively low output of secondary school graduates during the period (96 *baccalauréats* and 22 technical education *brevets* in 1963–64), the proportion pursuing degree programs at the postsecondary level must be limited.

Approximately one-third—248—of the 698 students were studying in the Soviet Union or in Eastern Europe; of these, 106 took work at the higher education level and 142 at the secondary technical education level. A total of 327 students were in France, and of these 222 were pursuing courses at the higher education level. Of the remaining 123 students, the majority were studying in other West and North African countries. In this connection, a special Guinean-Malian cooperative program in which Guineans were to study at the Higher Teacher-Training College in Bamako and Malians at the Polytechnic Institute at Conakry was abandoned after the 1st year of operation in 1962–63. However, some Malians are enrolled in the Polytechnic Institute.

OUT-OF-SCHOOL EDUCATION

The major special educational programs include adult literacy, youth civic services, popular vocational training, evening courses at the fundamental education level, and correspondence courses for teachers. Another important activity before the 1968 coup was the youth organization of the former national political party.

Adult Literacy

The campaign for adult literacy consists of the regular nationwide program and a pilot project sponsored by UNESCO and the United Nations Special Fund. The pilot project is quite similar to the one in Guinea in almost all details.[21] The 5-year programs will affect approximately 8,000 industrial workers in the capital city of Bamako and a larger number of rural workers in the Segou-Markala region who are associated with the Office du Niger development project.

The regular program has fallen far short of anticipated results, primarily due to lack of funds. The initial target within the first Five-Year Plan called for 3,000 literacy centers at the conclusion of the 1965–66 school year, but this was reduced subsequently to 1,000 centers, with functional literacy to be attained by 200,000 individuals. However, by the end of the 1963–64 school year, when the author was collaborating with this program, only 166 centers existed and attendees numbered under 13,000.

An organizational structure for the literacy program exists at the national, regional, and local levels. At the national level—within the Ministry of National Education—the program is headed by a coordinator responsible for organizing and supervising the structure, particularly the regional inspectorates. A small documentation and audiovisual service also operates

[21] See chapter 2, section on Out-of-School Education.

within the Ministry. However, considering the magnitude of the task, the equipment and materials and their distribution and funding are grossly inadequate.

At the regional level, an adult education inspector has the responsibility of organizing local centers and training instructional personnel. Although each inspector possesses some reproduction and audiovisual equipment, lack of vehicles has handicapped severely the mobility of these officials. To overcome this problem in part, they have obtained rides with other touring officials, primarily regional fundamental school inspectors.

At the local level, a literacy center is established in a village or town by interested inhabitants organized into a literacy committee. The committee's role includes mobilizing the community to construct a center, providing oil for lamps and batteries for a radio, generating enthusiasm and attendance for courses, and serving as a coordinating body between the village party unit and the literacy technicians. The volunteer teachers at such centers receive a brief period of preservice training from the regional inspector and some inservice training by him during his visits.

Youth Civic Services

Civic service camps, operated by the Secretariat of State for Youth and Sports,[22] provided a combination of literacy, military, and vocational training for male youths with little or no schooling. With a capacity for approximately 50 youths, these camps were limited to one per region. They offered a program of several months aimed at providing basic occupational skills and civic attitudes. Originally, the youths from one region were always sent to camp in another region in order to lessen local ties and to strengthen national identification. However, as the drift to cities became critical, youths were sent to camps in their own regions in an attempt to avoid detaching young people from their environment. In 1966, the camps were merged with the agricultural seasonal schools and are now called rural promotion centers.

The Secretariat of State for Youth and Sports also has operated popular education centers at the district level. Essentially for youth, the centers are open also to adults. Semiformal vocational courses in carpentry, masonry, and other skills are offered frequently.

Evening Courses (Second-Cycle)

Evening courses have been offered for several years in Bamako at the second-cycle, fundamental education level (grades 6 through 9). Intended primarily for government employees between the ages of 17 and 30, the classes were attended by 319 students in 1963–64. At the conclusion of the 1962–63 school year, 27 students took the examination for the DEF and 11 passed.

[22] As noted previously, the Ministry of National Education in 1969 assumed direct responsibility for youth and sports activities. However, the author has no information concerning resultant organizational changes.

Correspondence Courses for Teachers

Correspondence courses are conducted for fundamental education teachers by the National Pedagogic Institute. The courses are aimed at improving the qualifications of these teachers who, upon successful completion, receive professional certificates as teachers, assistant teachers, and monitors. In 1963–64, a total of 70, 130, and 50 teachers, respectively, were enrolled in the courses for certificates. A major problem for this program has been limitations and delays in postal service.

The Pioneers

Before the coup of 1968 and the banning of all political activity, the Pioneers, the youth organization of the former national political party, played an important role. Established in 1960 as a result of the Constitutional Conference of the Youth of the *Union Soudanaise RDA,* it was modeled after the Soviet Party youth organization. The four major divisions were *les minimes,* ages 8 to 12; les *cadets,* ages 13 to 15; *les pionniers,* ages 16 to 18; and *les cadres,* over 18. Only the two youngest age groups could consist of units composed of both boys and girls. Although somewhat similar to the scouting movement, the organization included political instruction and some military training for the older groups.[23]

Practical Orientation Centers

To provide 6th-grade school leavers (those leaving at the end of the first cycle of fundamental education) with 2-year practical agricultural, rural handicraft, and home economics training, practical orientation centers (*centres à orientation pratique*) are to be established. Two pilot centers were to be opened in June 1970, primarily to train teachers for these new centers. The United Nations Development Program, in collaboration with the International Labor Organization, will assist the Government in developing and establishing the new centers, which will be administered by the Department of Technical Education of the Ministry of National Education, Youth and Sports.

EDUCATIONAL EXPENDITURES

Total Malian expenditures for education in 1961, 1962, and 1963 amounted to 2.2, 2.7, and 2.5 percent, respectively, of the gross domestic product. When external aid is added, these percentages reach 3.0, 2.9, and 3.3, respectively.[24] Given the vast development needs in Mali, as well as the limitation of national resources, it appears unlikely that the proportion of educational expenditure to GDP will increase significantly in

[23] Details concerning the organization and its activities are described in a 30-page booklet titled: *A la découverte du mouvement national des pionniers du Mali* (undated), published by the Secretariat of State for Youth and Sports.

[24] UNESCO, Groupe de Planification de l'Education. *Mali: Rapport de la première mission.* Paris: UNESCO, November 1964. pp. 124–28.

the foreseeable future. This necessitates a major effort for greater internal efficiency.

In 1963, the capital and recurrent expenditures for education amounted to 3.9 and 16.9 percent, respectively, of the total national expenditure. Both of these ratios showed increases over those in 1961 and 1962.[25] These percentages and those of the preceding paragraph place Mali in a middle or average range in relation to similar expenditures of other nations of Francophone sub-Saharan Africa.

Recurrent Costs

A breakdown of recurrent educational costs in 1963—excluding those pertaining to technical assistance—reveals the following allocations by percentages:[26]

Fundamental education	48
Academic secondary	15
Technical	5
Higher	6
Subsidies to private schools	3
Central administration	2
Other	21
Total	100

One major fact does not appear in the above statistics. Only 2 percent of the total was devoted to agricultural education in spite of the critical importance of this sector to the economy. Another low percentage was for the central administration, which has the essential role of generating qualitative educational improvements.

Recurrent costs per pupil for the 1963–64 school year were calculated as $63.40 for the public fundamental education schools, including administrative costs, or as $61.97 not including them. For the same year, units costs for the public academic secondary and secondary-level teacher-training programs amounted to $358, excluding administrative costs and external aid.[27] Such costs were estimated at $1,020 for secondary-level technical and agricultural education. Out of a total of 14 Francophone sub-Saharan nations, Mali ranked fourth highest at the elementary level and fifth at the secondary level based upon comparative unit costs.

However, when the recurrent costs per graduate are considered, repeaters and dropouts add substantially to the cost. According to UNESCO estimates, the cost per graduate of the first cycle of fundamental education totals about 60 percent higher than the per pupil cost for all 5 years of the program.[28] If this formula is applied to the per pupil costs in the

[25] Ibid. pp. 124–27.
[26] Ibid. pp. 1 and 2.
[27] UNESCO, Groupe de Planification de l'Education. *Les aspects financiers de l'enseignement dans les pays africains d'expression française*. Paris: UNESCO. 1966. pp. 66-67.
[28] ———. *Mali: Rapport de la première mission*. Paris: UNESCO, November 1964. pp. 124-28.

preceding paragraph ($63.40 per year), the per graduate cost of the first cycle in 1963–64 amounted to approximately $507.20.

Capital Costs

Estimates of certain capital costs illustrate the large expenditures necessary to implement the 1962 reform, which planned that all fundamental education schools would include a manual arts shop, a science laboratory, and a home economics room. At 1964 prices, the unit costs in each school amounted to about $4,100, $4,100, and $2,900, respectively.[29] Assuming a 5 percent annual cost increase, the three units together would have cost approximately $13,300 in 1969—of which about $4,000 would probably have required foreign exchange. To achieve the total national figure, this cost per school must be multiplied by 200 first- and second-cycle schools, and eventually by a certain number of the approximately 500 first-cycle schools after their extension to include the second cycle. Faced with such high costs, the Government decided to add only the science laboratories as a first step. The success of the reform project will depend ultimately upon external assistance, particularly for the foreign exchange component.

The magnitude and sources of external assistance cannot be detailed due to lack of available data. France constitutes the major contributor to recurrent costs because of its extensive technical assistance program. The European Common Market and France are probably the most important multilateral and bilateral contributors to capital costs. As far as can be ascertained, since Independence every major capital cost project at the secondary and higher education level has been financed almost entirely through external grants, counterpart funds, or soft loans.

ENROLLMENTS AND EFFICIENCY

Enrollments

During the first 7 years after Independence, enrollments increased greatly. Numbers of students for 1960–61 and 1966–67, the percent enrolled at each level in 1966–67, and the percent increase from 1960–61 were as follows:[30]

Level	Number of students 1960–61	Number of students 1966–67	Percent of total enrollment 1966–67	Percent increase from 1960–61 to 1966–67
Elementary				
Grades 1–5	64,897	149,602	82.9	231
6–9	984	25,946	14.4	2,637
Total	65,881	175,548	97.3	266
Secondary	1,783	4,465	2.5	350
Higher education	81	309	0.2	381
Grand total	67,745	180,322	100.0	166

[29] Republic of Mali, Ministry of National Education, Planning and Statistical Section.
[30] Enrollment figures from: Republic of Mali, Ministry of National Education.

Second-cycle enrollments over the 7 years increased more rapidly than first-cycle enrollments, indicating a better flow through the system. At the secondary level, 1966–67 figures showed that, of the total secondary enrollment, general, teacher-training, and vocational-technical sectors had 29.7 percent (1,325), 27.3 percent (1,217), and 43 percent (1,923), respectively, which is a more balanced distribution of students than had previously existed. Number increase at the higher education level was relatively slow because of the lack of an adequate feeder base from the secondary level, the high cost and personnel requirements, and the time needed for institutional development.

Overseas students, not included in the above figures, rose from 235 in 1960–61 to 810 in 1966–67.[31]

Efficiency

On at least two occasions, the efficiency of the educational system in Mali has been studied. The findings of the first study concerning grades 1 through 6 between 1953 and 1961 included the following:[32]

1. *In 1953 and 1954:* 66.5 and 66.0 percent, respectively, of all pupils in the first 6 grades had repeated at least 1 grade.
2. *From 1955–56 to 1960–61:* In 15 urban schools, only 17.5 percent of the 1st-grade pupils in 1955–56 were in the 6th grade by 1960–61.
3. *From 1953–54 to 1957–58:* Of the urban pupils starting 1st grade in 1953 and the repeaters who joined the group as it progressed, only 15.2 percent graduated from the 6th grade.

The findings of the second study, conducted in 1963–64 after the reform, indicated that the repeater rate for the first 5 grades averaged 28.8 percent per grade for 1963–64 and the dropout rate averaged 7.4 percent per grade for the 1962–63 school year.[33]

Also included in the findings were the following:[34]

1. Based upon 1962–63 and 1963–64 statistics and their theoretical projection through 9 years, it was estimated that of 1st-grade pupils, only 4.6 percent would pass the final examination at the end of the 9th grade in 9 years (i.e., without repeating a grade), and another 20.5 percent would pass it after repeating 1 or 2 grades.
2. From 1961–62 to 1962–63, an estimated 67 percent of 10th-grade students passed the *baccalauréat* examination at the end of 12th grade. (The study concluded that wastage was relatively insignificant at the secondary level.)
3. From 1961–62 to 1962–63, for the technical *lyceé*, the average annual dropout rate was 4.7 percent and the repeater rate, 12.1 percent. (The vast majority of those who did not complete their education found employment without difficulty.)

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[31] République du Mali, Ministère du Plan. *Annuaire statistique 1967*. p. 49.
[32] Isabelle Deblé. "Les rendements scolaires en Afrique," *Tiers-Monde*. Paris: Presses Universitaires de France, 1964 pp. 55, 89, and 94.
[33] UNESCO, Groupe de Planification de l'Education. *Mali: Rapport de la première mission*. loc. cit. pp. 109–12.
[34] Ibid. pp. 114–16.

SUMMARY

Educational expansion in Mali since Independence has proceeded at a more controlled pace than in many Francophone African countries. An estimated 11 percent of the 6 to 20 age group were in school during 1966–67.[35] In terms of structure, the French system has been replaced by a two-cycle elementary level known as fundamental education (grades 1–6 and 7–9) and a 3-year secondary level (grades 10–12). Selective examinations after the 6th and 9th grades control enrollments.

The 1962 reform emphasized curriculum revision for fundamental education with the aims of Africanizing and upgrading content and of improving quality of instruction. However, the lack of qualified personnel and adequate funds has limited severely the practical implementation of these objectives—the addition of workshops and science laboratories, new textbooks, the increased use of audiovisual aids, and the expansion and improvement of preservice and inservice teachers training. Thus, the qualitative objectives of the reform appear ambitious in the light of scarce resources. They tend also to be nonfunctional in that the measures essential for their implementation have not been completely specified and programed.

Another problem for the fundamental education level has been high wastage rates in the first cycle.

At the level of secondary education, the rate of enrollment increase has been relatively low and external aid has had a considerable impact through projects aimed at expanding and improving agricultural and industrial education. Nevertheless, the output of first-cycle and second-cycle teachers from secondary-level teacher-training schools has fallen behind the needs; the problem of diversifying academic secondary education as the enlarged enrollment waves reach the secondary level requires thorough consideration; and job problems are threatened for graduates because of a limited labor market dominated by Government services and because the growth potential of the economy is restricted by a lack of natural resources, a poor infrastructure, and a remote geographical location.

The development of higher education has commenced logically. Key manpower needs have led to establishing institutions to train secondary school teachers, administrators, engineers, and doctors. However, unit costs are extremely high and the wisdom of the pending project to establish a complete university appears questionable in view both of the present needs and resources of the nation and of the availability of the Francophone regional universities.

Indeed, the crisis for education in Mali may become acute in the 1970's because: (1) The costly reforms of fundamental education will not have

[35] Based on school-age and school population statistics from the Ministry of Plan's *Annuaire statistique 1967*.

been completed; (2) the demand for secondary education may force a rapid expansion of this expensive sector; (3) the growing numbers of secondary school graduates may have difficulty in finding jobs due to a limited labor demand and their lack of needed skills; (4) enrollments in costly higher institutions of learning will have assumed a larger proportion of the scholastic population; and (5) the recurrent costs of education will constitute a heavier burden while the sources of financing capital expenditure may decrease.

IV. The Republic of Senegal

SUMMARY OF CHARACTERISTICS

The People and the Land

The estimated population of Senegal was about 3.8 million in 1969, with a density of approximately 50 inhabitants per square mile. The annual rate of growth is estimated at about 2.5 percent.[1] The population density varies greatly, ranging from over 1,000 persons per square kilometer in the Cap-Vert region, which is the site of the Dakar metropolitan area, to about 3 persons per square kilometer in eastern Senegal. The population is predominantly rural. The major urban center, metropolitan Dakar, contains almost a half million inhabitants. Other urban centers include the towns of Kaolack and Thies with about 70,000 inhabitants each, Rufisque and Saint-Louis with 50,000 each, and Ziguinchor and Diourbel with 30,000 each. Because there are over 13,000 villages with an average of only 155 inhabitants each, however, it is difficult to extend educational opportunity to the rural areas.

The people come from various ethnic groups, some of which are also found in Mali and Guinea.[2] Under the extended family tradition, employed town dwellers play host to relatives from rural areas and this practice tends to encourage migration to the cities. Approximately 80 percent of the population are Moslems.[3] French is the official language.

Senegal covers about 76,000 square miles and is located at the western extreme of the African continent. It borders on Mauritania to the north and east, Mali to the east, Guinea to the southeast, and Portuguese Guinea to the southwest. The Gambia, a former British colony, forms a narrow enclave along the Gambia River. Four major rivers traverse the country from east to west. The Senegal River, forming the frontier with Mauritania and Mali, is navigable for 1,100 miles; the other important rivers are the Saloum, the Gambia, and the Casamance.

The climate and vegetation vary from sub-Saharan desert conditions in the north and northeast to tropical rain forests in the south. Annual rainfall for these two extremes averages under 15 inches and 70 inches.

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[1] U.S. Department of State. *Background Notes: Republic of Senegal* (Publication No. 7820). Washington: Office of Media Services. June 1969. p. 1.

[2] Wolof—36 percent; Peul—17.5 percent; Serere—16.5 percent; Toucouleurs—9 percent; Diola—9 percent; and Mandingo—6.5 percent. Ibid.

[3] Ibid.

The Economy

The importance of agriculture in Senegal is indicated by the fact that it accounts for about 40 percent of the total GDP and that over 70 percent of the active male population are engaged in agriculture, either as small farmers or as pastoralists. Peanuts, which account for almost 50 percent of the total agricultural output, are the only important export crop. Millet, the most important food staple, accounts for 15 to 20 percent of the agricultural production. Rice and cotton are other important crops, but production is still insufficient to meet local demand.[4]

The diversification of agriculture represents a major Government goal. In the past, diversification has been limited by extremely favorable conditions for groundnut production, the preferential high price guaranteed by France for ground nuts, climatic conditions which limit production to plants with a short vegetative cycle, and the problems of modernizing farm methods.

The industrial sector has grown rather slowly, and the services sector has decreased since Independence. Among the reasons for this decrease are (1) the establishment of independent nations, which has deposed Dakar as the administrative, industrial, and commercial center of French West Africa; (2) the substantial reduction in French troops stationed in Senegal; (3) post-Independence uncertainties (which have now lessened) concerning the role of private investment; (4) the modernization of industry with labor-saving devices; and (5) the lack of a Government employment increase.

Economic growth since Independence has been relatively slow: the estimated annual increase in the GDP has been slightly over 4 percent, but annual price increases have risen between 2 and 3 percent[5] while the annual population growth rate is about 2.5 percent. These figures imply that per capita income has not increased and perhaps has even decreased during recent years. Estimates placed per capita income in 1967 at about $182.[6]

The Government and its Political Orientation

Senegal is described frequently as one of the most politically stable countries in West Africa. The former single legal opposition party, the *Parti de la Révolution Africaine*, in 1966 merged with the majority party, the *Union Progressiste Sénégalaise*, and opposition leaders received ministerial appointments. Although there is only one political party, the Government is organized as a parliamentary democracy.

The country has remained closely linked with France and its internal and external policies have been moderate. Under the leadership of President Senghor, foreign policy has stressed greater regional cooperation and the establishment of an international French-speaking community. The

[4] Interviews with Republic of Senegal authorities and French technical assistance personnel.
[5] Ibid.
[6] U.S. Department of State. *Background Notes: Republic of Senegal*. op. cit. p. 3

dominant ideology of the Government is known as African Socialism, a mixture of Christian Socialism, Marxism, and Negritude. Except for nationalizing the marketing of peanuts shortly after Independence, the Government has maintained an open economy favorable to private activity.

THE EDUCATIONAL SYSTEM

Policy Development

Educational planning has been conceived and implemented within the context of national development plans. The First Plan ran from 1961 to 1964, the Second Plan from 1965 to 1969, and the Third Plan, completed recently, is to run from 1969–70 to 1972–73 and is based largely upon a 10-year "perspective" study.

The Second Plan.—The method of preparing the Second Plan was complex.[7] First the Superior Council for the Plan, headed by the President, defined the Plan's general orientation and objectives, based upon statistical studies which included projections of future development derived from alternative hypotheses. These studies included sectorial studies based upon the short-term (1968–69) economic outlook, and long-term geographical studies. The completed objectives or guidelines established by the Council included the estimated growth of the GDP, the maximum limit for investment in development projects, the need to maintain a balanced budget and thus to restrict the increase in recurrent costs, and a tentative breakdown of global investments by sector during the Plan period.

Next, 13 national committees were instructed to develop for the first 2 years both detailed projects and general objectives, and for the last 2 years less detailed programs (since the latter would require revision in light of events during the first 2 years).

Membership of the 13 committees included legislators, high officials of executive agencies, representatives of regional and local organizations, national and foreign technical experts, heads of public and private professional organizations, and individuals noted for their competence in a given field.

Seven of the committees were responsible both for translating the Plan's general objectives and limitations (established by the Superior Council) into programs for various activity sectors, such as commerce, education, and industry, and for defining the methods to achieve specific objectives. One of the seven, the committee of rural economy, also served as a coordinating group to assemble the work of the other committees.

The remaining six committees, referred to as horizontal committes, regrouped the data from the others and evaluated the coherence between ends and means and the equilibrium between the programs proposed for

[7] République du Sénégal. Ministère du Plan. *Deuxième plan quadriennal de développement économique et social: 1965–1969.* Dakar. 1965. I: 61–64.

various sectors. This process in turn led to consultations with the sectorial committees concerning program adjustments. Among the six committees were those for finance, general economy, and regionalization. The general economy committee also served to synthesize the Plan into a coherent form.

These 13 national committees were assisted by regional and local committees which helped in preparing regional plans within the framework of financial and other means determined at the national level.

The preparation of the Plan took approximately 1 year. The Superior Council for the Plan had set the general orientation and objectives in April 1964. The various committees conducted their preliminary work until July 1964, the Plan was adjusted until February 1965, and only in April 1965 was it submitted for final approval.

Within the educational sector, the planning was complicated by the number of ministries responsible for various aspects of education. In fact, the lack of coordination between ministries has been cited as a problem never completely overcome in preparing the educational part of the Second Plan.[8]

This same problem is reported to have affected the preparation of the Third Plan. The draft plans of the Ministries of Education and of Technical Education and Vocational Training contained conflicting structural and curriculum proposals at the lower (first-cycle) secondary level and some duplication in the form of terminal postelementary programs.

The complexity of planning procedures and the lack of communication between and often within agencies have been discussed at length in this chapter as a case in point. Methods of educational planning and management seldom receive adequate attention in developing countries in spite of their critical importance as a prerequisite to allocating and managing scarce monetary and human resources effectively. Senegal is no exception. Educational planning offices are generally small, understaffed units limited largely to collecting data rather than large divisions oriented to evaluating data and planning on the basis of this evaluation. Frequently the proposed solution is to place the entire educational system under one ministry and provide it with a strong planning division or to superimpose a national educational planning agency and policy development agency over the various ministries operating subsectors of the system.

The Third Plan.—Guidelines for developing the education sector of the Third Plan, established by the Office of the Presidency and the Ministry of Planning and Development, included the following:

1. Continue restrained enrollment growth (because of limitations of internal finances, external aid, and manpower requirements).
2. Distribute educational opportunity better, geographically.

[8] République du Sénégal. Ministère du Plan et du Développement. *Etude sur les orientations d'un plan éducationnel au long terme au Sénégal.* Dakar. 1965. Chap. II. p. 1.

3. Restructure the system to provide the majority of elementary school leavers with further practical training.
4. Focus upon relating higher education development to the country's manpower needs.

According to informal reports, the Third Plan (for 1969–70 to 1972–73) as finally approved included:

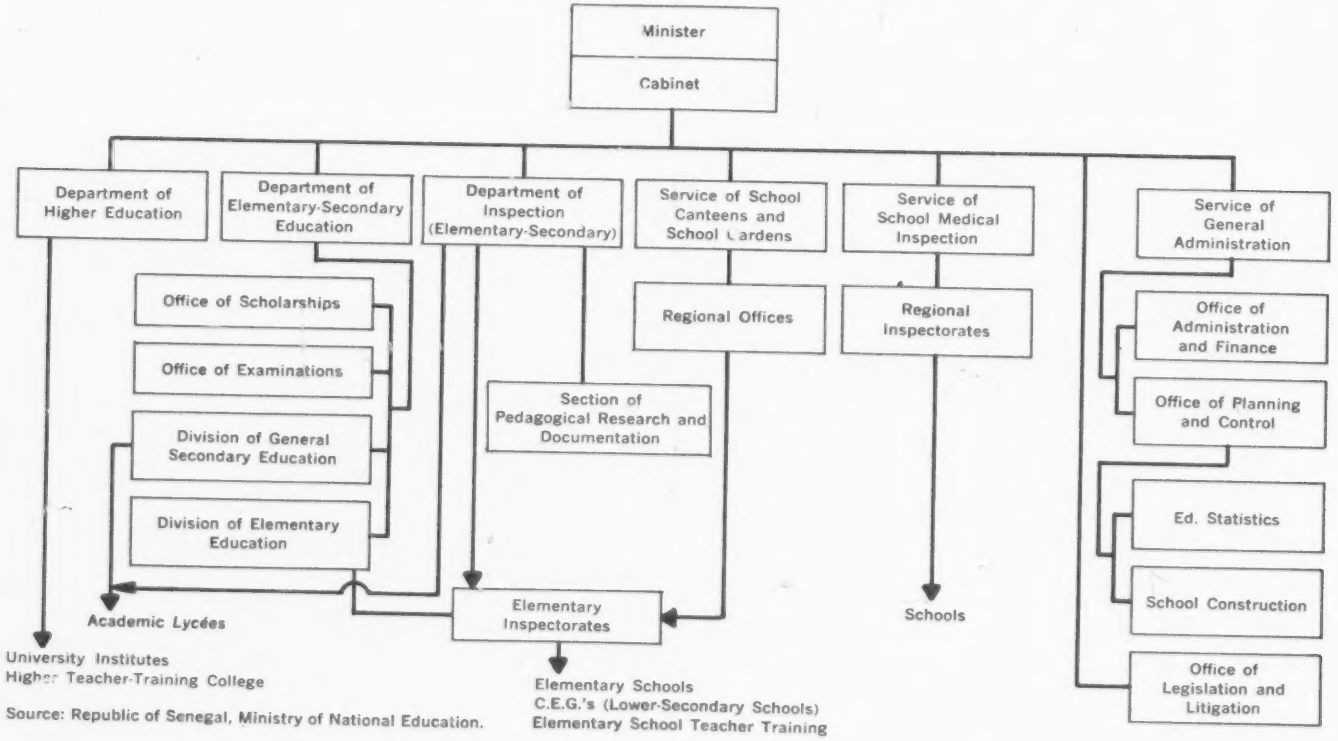
1. Restructuring the elementary and secondary levels as follows:
   Elementary: 5 years
   Lower secondary: 4 years
   a. Terminal practical training
   (For 85 percent, the elementary school leavers)
   or
   b. General academic studies at *collèges d'enseignement secondaire* (C.E.S.'s)
   (For the remaining 15 percent)
   Upper secondary: for C.E.S. graduates
   a. 3 years at an academic *lycée*
   or
   b. 3 years at a technical *lycée*
   or
   c. 2 years at a vocational school
2. Establishing C.E.S.'s in regions of the country presently without them.
3. Eliminating lower secondary vocational schools and *lycée* programs as they are replaced by the new C.E.S. program.
4. Spending the major portion of higher education funds on the medical and veterinary sciences, higher technical education, and higher teacher training.

Administration

The major responsibilities for education and training rest with four ministries, although several others participate to varying degrees. The Ministry of National Education is responsible for general education; the Ministry of Technical Education and Training administers vocational-technical education; and the Ministries of Popular Education and of Youth and Sports operate the adult literacy and the youth civic service and sports programs (including physical education teacher training). Among the other ministries engaged in educational activities are the Ministry of Agriculture, responsible for postsecondary agricultural education, and the Ministry of Information, responsible for education through the mass communication media.

The organization of the Ministry of National Education is shown in chart 7. Several offices, such as those of I.F.A.N. (changed in recent years from Institut Français d'Afrique Noire to Institut Fondamental d'Afrique Noire) and the National Library, have been omitted in the chart for the sake of clarity. A key office of the Ministry is the Office of Planning and Control, which maintains a suboffice for statistics and another for school construction. From the qualitative aspect, the Section of Pedagogical Research and Documentation occupies an important position also. Both

Chart 7. Ministry of National Education in Senegal: 1968–69



Source: Republic of Senegal, Ministry of National Education.

units, however, lack the staff to perform their respective comprehensive planning and research roles.

As agencies of the executive branch of the Government, the ministries concerned with education may propose changes in the system; enactment for major matters such as the 5-year plans, however, requires legislation by the National Assembly, and for less substantive matters (such as personnel actions, the location and construction of specific schools, or scholarships), Presidential executive orders or decrees.

Draft executive decrees are subjected to comments by the Higher Council of National Education (an advisory body of educators and ministerial officials) prior to decision by the Council of Ministers. Drafts approved by the latter council are then subject to approval by the President and next by a Supreme Court ruling on their legality. Finally, the President's signature activates the decrees as legal entities.

Structure

The present structure.—Shown in chart 8, the present structure is essentially the same as the old French-African one. A 6-year elementary level of 3 cycles (each of 2 years) is followed by a 7-year secondary level of 4- and 3-year cycles. The school completion certificate (CEPE) received at the end of the elementary level does not entitle the holder to enter the first-cycle (lower) secondary; he must also pass a special entrance examination.

There are two general lower-secondary tracks. One is provided by the *collèges d'enseignement general* (C.E.G.'s) and the other by the *lycées*. Entrance into the upper secondary cycle is much easier for a *lycée* graduate than for a C.E.G. graduate. The latter may only enter the general upper secondary track in the *lycée* if he receives a high enough score on the lower secondary terminal examination (for the BEPC); otherwise he must enter upper secondary technical education or elementary school teacher training.

Vocational training, designed to train skilled labor, consists of 3- or 4-year lower secondary terminal courses in such fields as agriculture, commerce, home economics, and industry. Middle-level technicals are trained in 3- or 4-year upper secondary courses.

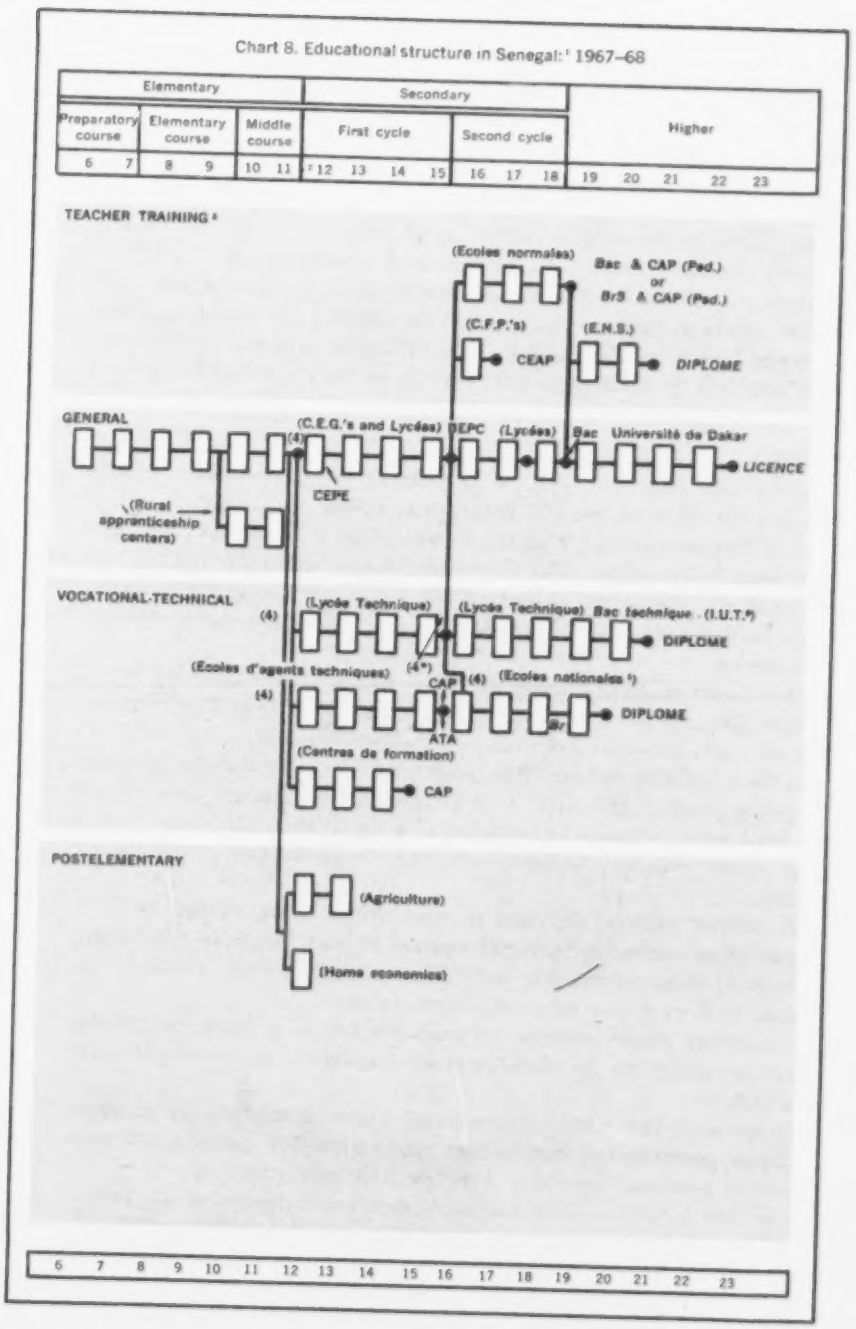
Elementary school teachers are trained either in a 1-year or a 3-year upper secondary course. Graduates of the latter are considered fully qualified.

Lower secondary school teachers and senior technicians are prepared in 2-year postsecondary institutions; upper secondary teachers and engineer-level personnel receive a complete university education.

The new structure.—The previously mentioned changes in the present structure will begin during the Third-Plan period (1969–70—1972–73) in a progressive phasing process starting with the elementary grades and will be completed during the Fourth-Plan period.

The new system will have a 5–4–3 structure instead of the present

Chart 8. Educational structure in Senegal:[1] 1967–68



KEY:

●=Examination

Certificates

ATA=*diplôme d'agent technique de l'agriculture*
Bac=baccalauréat
Bac technique=baccalauréat technique
BEPC=*brevet d'études premier cycle*
Br=brevet
BrS=brevet supérieur de fin d'études normales
CAP=*certificat d'aptitude professionelle*
CAP *(Ped.)=certificat d'aptitude pédagogique*
CEAP=*certificat élémentaire d'aptitude pédagogique*
CEPE=*certificat d'études primaires élémentaires*
LICENCE=French degree, awarded after 4 years of postsecondary education

Institutions

C.E.G.'s=*collèges d'enseignement général*
C.F.P.'s=*centres régionnaux de formation pédagogique*
E.N.S.=Ecole Normale Supérieure
I.U.T.=Institut Universitaire de Technologie

NOTE: For clarity, the American system of grade numbering is used here. In Senegal, the grades in ascending order are termed, for the *elementary* level—preparatory course 1 and 2, elementary course 1 and 2, and middle course 1 and 2; for the *secondary* level—6, 5, 4, 3, 2, 1, and terminal.

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[1] Substantial structural changes are being discussed for possible implementation under the Third Plan (1969–70—1972–73). These changes are discussed in the text, chapter IV, under The Educational System.

[2] The average entrance age is actually 14 instead of 12.

[3] Elementary school teachers are trained in the *écoles normales*, assistant elementary teachers in the C.F.P.'s, lower secondary teachers either in the *écoles normales* or the *Ecole Normale Supérieure* (E.N.S.) and upper secondary teachers in the *Université*.

[4] An entrance examination is also required.

[5] For bac candidates only.

[6] Schools for training specialized lower- and higher-level technicians.

[7] Formerly the *Institut Polytechnique*.

Source: Republic of Senegal, Ministry of National Education.

6–4–3, totaling 12 years instead of 13. About 15 percent of the primary school graduates will enter first-cycle secondary schools and 85 percent postprimary practical training schools. Both tracks will have "transition classes" in their 1st year (grade 6). Up to 5 percent of the best pupils in the practical training transition classes will be allowed to transfer into the 2d year (grade 7) of the first-cycle secondary schools. These latter schools, apparently to be called C.E.S.'s instead of C.E.G.'s, will offer some vocational courses although their orientation will remain academic. The practical training schools will offer both a rural training program oriented toward agriculture and an urban one oriented toward industry.

Graduates of the C.E.S.'s will enter either the 3-year academic or technical *lycées* (which will drop their first-cycle secondary programs and offer only the second cycle) or the 2-year second-cycle vocational schools. First-cycle *lycée* and vocational school programs thus will disappear.

ELEMENTARY EDUCATION

Objectives

The purpose of elementary education in Senegal is to develop the basic language arts and computational skills, an understanding of the environment, and good citizenship. The problem is to attain these objectives without uprooting children from their rural environment. The Second Plan emphasized the necessity to continue and greatly increase efforts to adapt elementary education to the needs of an essentially agricultural country.[9]

Curriculum

The elementary school curriculum is very similar to the program followed before Independence. Determined largely by the fact that the language of instruction is not the mother tongue, the curriculum is dominated of necessity by language arts, or the learning of French. From the 1st school year, presently referred to as the *cours d'initiation*, through the 4th year, French per se and basic French skill courses (such as reading and writing in French) constitute more than half the weekly program. During the 5th and 6th years, the time devoted to the basic reading and writing skills is reduced and the time for subjects such as history and geography is increased; thus, during these years language arts absorb less than half the weekly program.

Four rural apprenticeship centers provide 2 years of prevocational training to pupils leaving the 4th grade. Operated by the Ministry of Technical Education and Training, the schools accept only pupils capable of reading and writing. Although emphasis is upon practical skills, some further academic education is included. The program's objective is to prepare capable producers at the grassroots rural level.

Public and private elementary school enrollments reached 248,749 in 1967–68.[10] Further enrollment data are given under Enrollments and Efficiency.

Teachers

Elementary school teachers are classified as *instituteurs* (teachers), *instituteurs adjoints* (assistant teachers), *moniteurs* (monitors), and *moniteurs auxiliaires* (auxiliary monitors). In 1967–68, there were the following numbers of teachers in each category:[11]

	Public schools	*Private schools*
Teachers	511	95
Assistant teachers	2,694	445
Monitors	647	122
Auxiliary monitors	789	233

[9] République du Sénégal, Ministère du Plan et du Developpement. *Deuxième plan quadriennal de développement économique et social: 1965-69*. loc. cit. II:210.

[10] République du Sénégal, Ministère de l'Education Nationale *and* Ministère de l'Enseignement Technique et de la Formation Professionelle. *Statistiques scolaires: 1967–68*. Table I/20.

[11] Ibid. Tables I/26 and I/28.

Fully qualified teachers have received a complete secondary education with their last 3 years (grades 11 to 13) spent in a normal school (*école normale*). Assistant teachers have received 1 year of theoretical and practical pedagogical training after completing lower secondary school. Monitors generally have had 9 years of education. Auxiliary monitors must be 6th-grade graduates holding the CEPE.[12]

The quality of instruction has been a concern of the Government over the past few years. By slowing enrollment growth while increasing teacher production, the Government hopes virtually to eliminate the auxiliary monitor category of instructors within the next few years. Other efforts to improve instruction included adding 10 new elementary inspectorates during the Second Plan and holding annual regional summer inservice training programs.

Schools and Equipment

Although schools vary considerably, the typical school has rather barren classrooms. Inadequate chalkboards are the main teaching tool; textbooks are not always plentiful or in good condition due to their fragile nature; and audiovisual equipment is rare, with no audiovisual services extended to schools.

In 1965–66, school textbooks were selected on a national basis for the first time. Previously, the selection had been made for each area by its elementary school inspector. Most textbooks are published in France but adapted to Africa. In some cases, they are prepared especially for Senegal. African educators occasionally criticize the books as having only superficial changes, such as in the illustrations and proper names, and not reflecting the African mentality or spirit.

GENERAL SECONDARY EDUCATION

Structure and Objectives

As shown in chart 8, a general lower secondary education comprises 4 years of study. The terminal certificate is the *brevet d'études du premier cycle* (BEPC). The course is offered in the *lycées* and in the *collèges d'enseignement general* (C.E.G.'s). The latter schools are strictly first-cycle institutions. Their graduates must gain admission either to a *lycée*, an elementary teacher-training school, a national (specialized) school (*école nationale*), or the Lycée Technique or terminate their formal studies. They prefer a *lycée*, because it alone offers the prestigious upper secondary (second-cycle) academic studies and the possibility of continuing to higher education. Their opportunities of gaining admission to the *lycée* are limited, however, primarily because the best students, chosen by the lower secondary entrance examination, generally have pursued their studies

[12] The *certificat d'aptitude pédagogique élémentaire*, also referred to as the CEP (omitting *élémentaire*).

in the first or lower cycle of the *lycées* and have priority for admission to the second or upper cycle of those institutions.

The 3-year upper secondary course offered by the *lycées* culminates in the *baccalauréat* for successful candidates.

The purpose of general lower secondary education is to supplement the elementary basic education so that the graduate is capable either of pursuing further academic or technical studies or of entering the labor market with an adequate general education. Up to the present time, most general lower secondary school graduates, being few in number, have been able to pursue some form of upper secondary education.

Curriculums

Despite some modification in content, the curriculum of the two cycles are similar to the French. Adapting secondary subject matter in the sub-Saharan Francophone states has been an international cooperative enterprise. The French Ministry of Education and the French National Pedagogical Institute have played a major role in this enterprise, both to ensure that African diplomas, such as the *baccalauréat*, are equivalent to those of France and also to facilitate the continuance of studies at the secondary and postsecondary levels in French and African institutions.

The major changes have occurred in history, geography, and biology. Senegal, West Africa, and the African continent receive more attention in historical studies and geography. African flora and fauna have largely replaced those of Europe in biology and other pertinent science courses. Also, French literature studies include the works of the noted Francophone Africans such as President Senghor of Senegal.

The upper secondary program of studies includes the classical and the modern tracks. The former offers Greek and Latin in addition to other studies; the latter offers specialization in mathematics, modern languages, or science. Enrollments in the modern track are much higher than those in the classical track.

The use of audiovisual media is still very limited despite significant efforts to increase it during recent years. Agencies participating in this campaign include the Research Center of the Higher Teacher-Training College (Ecole Normale Supérieur—E.N.S.) and the Pedagogical Research and Documentation Section of the Ministry of National Education.

General secondary enrollment reached 47,400 in 1967–68.[13] Further enrollment data are given under Enrollments and Efficiency.

Teachers

The majority of secondary teachers are French. This situation is unlikely to change in the foreseeable future due to increasing enrollments and an inadequate output of Senegalese teachers. Due to the lower qualifications required at the C.E.G.'s and the regular output from the E.N.S., the proportion of local faculty is greater in the C.E.G.'s than in the

[13] Ibid. Tables II/22, III/4, and III/11.

lycées. However, in 1967–68 foreign teachers comprised about 79 percent of all teachers in public and private first- and second-cycle secondary schools.[14]

Schools and Equipment

In 1967–1968, 61 public C.E.G.'s and 11 public *lycées* were in operation (as well as three public secondary-level normal schools which are frequently classified as *lycées* or general secondary institutions). In addition, there were 63 private secondary schools including 5 which are classified as *lycées*.[15]

A major problem of public secondary education is the geographical distribution of schools. For example, four of the 11 public *lycées* are located in the Cap-Vert region, which is composed largely of the Dakar metropolitan area. Another four are situated in the Fleuve region, the location of the city of Saint-Louis. Another is in the town of Thies, about 35 miles east of Dakar. The remaining two *lycées* are in Kaolack and Ziguinchor, about 85 miles southeast and 150 miles south of Dakar, respectively. Since all these cities are located on the coast or less than 50 miles east of it, the interior of Senegal is without institutions offering a complete general secondary education.

The same situation applies to the 63 private secondary schools of which five offer upper secondary courses. The latter schools are all in or near Dakar and the vast majority of their students are French.

The furnishings and equipment in the newer schools, such as the Lycée Charles de Gaulle at Saint-Louis, are good; but in the older schools, particularly the C.E.G.'s, they are minimally adequate by Western standards. Special rooms such as libraries and science laboratories are generally small and underequipped and audiovisual equipment is rarely available.

TEACHER TRAINING

Elementary School Teachers

Ecoles normales offer 3-year upper secondary programs to train elementary school teachers. A graduate receives the *baccalauréat* or the *brevet supérieur de fin d'études normales*, and a *certificat d'aptitude pédagogique*[16] (see chart 8). In 1967–68, three schools had a total of 810 students, with 490 and 320 in the first and second cycles, respectively.[17] The program of studies for the normal schools is virtually the same as for the general upper secondary schools (*lycées*) with the major exception that about three periods weekly in the former are devoted to pedagogical

[14] Ibid. passim.
[15] Ibid. Tables II/14, II/16, III/10.
[16] The *brevet supérieur* is to replace the *baccalauréat* since the latter permits access to higher education and normal school graduates have been frequently pursuing further studies rather than teaching.
[17] Ibid. Table III/7.

training. One of the normal schools, the regional school of M'Bour, was opened in 1964 as the first of a series of similar institutions to be constructed.

Assistant elementary school teachers are trained in 1-year courses open to holders of the BEPC at *centres régionnaux de formation pédagogique* (regional pedagogical training centers—C.F.P.'s). A graduate receives a *certificat élémentaire d'aptitude pédagogique* (CEAP). In 1965–66, the three centers in M'Bour, Ziguinchor, and Rufisque had a total of over 500 students. Due to its short duration, the program emphasizes pedagogical content.[1]

Although the training of monitors has ceased, inservice training programs exist to permit present monitors to become assistant teachers. The Pedagogical Research and Documentation Section of the Ministry of National Education operates the programs in collaboration with elementary school inspectors. The training culminates with an examination for the CEAP.

Fully trained elementary school teachers may teach in the C.E.G.'s (first-cycle secondary schools) as well as in the elementary schools. Plans call for the progressive replacement of monitors who fail to receive a CEAP by more qualified personnel.

Catholic elementary school teachers receive a somewhat different training. BEPC holders interested in teaching are given a month of pedagogical training prior to teaching. While they are teaching, short weekly inservice meetings are held with an experienced teacher. After 2 years of teaching experience, candidates for full qualification return to school for 3 years of upper secondary studies which include pedagogical courses. Upon receipt of the *baccalauréat*, they are considered fully qualified. Assistant teachers are those who do not attain this level of education.

Secondary School Teachers

Lower secondary instructors are prepared in a 2-year postsecondary program at the E.N.S. Upper secondary teachers are prepared in a 4-year postsecondary program at the University of Dakar in collaboration with the E.N.S. Graduates from the E.N.S. are usually assigned to teach in the C.E.G.'s, and those from the University in the *lycées*. Actually, the limited number of students qualified for entrance into the E.N.S. and the University has severely limited the enrollments and output of these teacher-training programs which culminate in a diploma from the E.N.S. of a *licence* from the University.

The E.N.S. offers four courses, each of which includes a major and a minor: (1) letters and history/geography, (2) letters and English, (3) mathematics and physics/chemistry, and (4) mathematics and natural science/chemistry. The University courses offer what is actually specialization in a given discipline plus a limited pedagogical course. In 1965–66, the E.N.S. had 63 students in the 1st-year courses and 37 in those of the

2d year. The university statistics provide no data because all students are registered by faculty disciplines.

University graduates become secondary teachers only if other opportunities are limited. Since the economy of Senegal is relatively restricted and not subject to rapid expansion, university graduates may turn to teaching as their numbers grow. In the meantime, secondary school enrollments must increase and thus additional expatriate teachers will be required.

POSTELEMENTARY EDUCATION

Because of the increasing numbers of elementary school leavers unable to pursue secondary school studies, the Government initiated in 1967–68, on an experimental basis, 2-year rural agricultural classes for boys. This followed a similar effort started by private schools in 1966.[18]

The students—volunteers and residents of the regions where the classes are located—have terminated the 6th grade but do not necessarily possess the CEPE. The classes are attached to a local elementary school and offer boarding or lunch facilities to the students. Plans to expand this type of training are under discussion.

A postelementary program for girls was established in 1960 and expanded in 1962. A 1-year course, it trains girls in home economics and market- or truck-gardening.[19]

VOCATIONAL AND TECHNICAL EDUCATION

The Ministry of Technical Education and Vocational Training operates most types and levels of schools offering agricultural, commercial, forestry and fishery, and industrial education and training. It also administers home economics training schools and a variety of training courses for rural and urban workers.

The numerous specialized vocational schools (shown in chart 8) offer 3- or 4-year courses at the first-cycle secondary level after the 6th grade. Schools with 3-year courses are called *centres de formation* (training centers); schools with 4-year programs are called *écoles d'agents techniques* (schools of technical agents). The 3-year courses lead to the CAP (*certificat d'aptitude professionnelle*); the 4-year courses lead usually to an ATA (*diplôme d'agent technique de l'agriculture*). There are, however, technical agent diplomas of different titles according to specialization, and certain CAP's are awarded only after 4 years of study. The objective of this level of training is to produce skilled workers.

[18] France. Bureau pour le Développement de la Production Agricole. *Etude comparative des essais d'adaptation de l'enseignement primaire aux besoins des pays d'afrique à économie rurale dominante*. Vol. III. Paris: UNESCO. n.d. n.p.

[19] The girls' program is operated by the Ministry of Technical Education and Vocational Training, while the boys' program is under the Ministry of National Education.

Technical education includes two types of programs, both following the completion of first-cycle (lower) secondary education and the receipt of the BEPC. The objective of the one is to produce foremen and technicians, and of the other to prepare candidates for postsecondary technical studies. Successful students of the former programs attend one of the *écoles nationales*, and receive a *brevet d'agent technique* or a *brevet de technicien* after 2 or 3 years; or continue through the 4th year of a national school (such as the Ecole Nationale des Travaux Publics et du Bâtiment) and receive a diploma. Those of the latter program attend the Lycée Technique and receive a *baccalauréat technique*.

In addition to the Ministry's programs, there are privately maintained training courses at the lower secondary level and specialized programs operated by various technical ministries.

Enrollments

In 1967–68, enrollments in the lower and upper levels of vocational-technical secondary education in the public and private sectors totaled 9,189 students. In the 25 schools[20] administered by the Ministry, 4,471 students were pursuing courses at the lower secondary level and 2,581 at the upper level, and in the 17 private schools (15 confessional), 2,137 students were following courses at the lower secondary level. In addition, 1,426 students were taking short training courses operated by the Centre National des Cours Professionnels, and 59 were taking similar courses in private schools.[21]

Postsecondary Technical

The Institut Universitaire de Technologie (I.U.T.), established in 1964 as the Institut Polytechnique, offers postsecondary technical education. Its enrollment in 1967–68 was 63 students.[22] Lacking its own facilities, it uses those of the University and the Lycée Technique Delafosse. However, the Third Plan (which became effective in the fall of 1969) budgets funds for its facilities. Institute programs are to meet the needs of industry and its courses vary accordingly. The majors offered in 1967–68 were electricity, chemistry, general mechanics, and rural engineering.

Entrance is open to holders of the *baccalauréat* and through an examination to students without it. The courses are of 2 years' duration, although some students judged unprepared must take a preparatory year also. The graduation diploma is known as the *diplôme Institut Universitaire de Technologie*.

Special Schools

Nine special technical secondary and combined secondary and post-

[20] These schools and training centers are located in nine towns, with 12 situated in Dakar. There are two technical *lycées*, Delafosse at Dakar and Peytavin at Saint-Louis.

[21] République du Sénégal, Ministère de l'Education Nationale *and* Ministère de l'Enseignement Technique et de la Formation Professionelle, op. cit. Unnumbered table on p. 30 of Technical Education section.

[22] Ibid. Table IV/4.

secondary schools operate under the administration of agencies other than the Ministry of Technical Education and Vocational Training. The largest of these are the State School for Nursing, which had an enrollment of 105 students in 1967–68, and the Postal and Telecommunications School, with 104 students.[23]

Teachers

The training of vocational and technical instructors and teachers is very limited. Lower secondary shop instructors are being trained locally at the Centre National de Formation des Instructeurs. The Ecole Normale d'Enseignement Technique Masculin has been set up recently to prepare shop instructors and certain categories of teachers of theory. However, fully qualified theoretical teachers for the upper secondary level are still being trained abroad. Some of the national technical schools employ teachers with the appropriate technical qualifications to which a short pedagogical course is added.

The major institution for the preparation of women vocational and technical teachers is the Ecole Normale Nationale d'Enseignement Technique Feminin. At the upper secondary level, the school operates three programs to train assistant teachers of home economics, teachers of home economics, and teachers of commercial education.[24] The training of rural home economics teachers takes place in the Centre National de Formation de Monitrices Rurales.[25]

The vast majority of teachers in vocational and technical schools are expatriates, mainly provided by French technical assistance. In 1967–68, 229 of the 324 teachers were in this category.[26]

AGRICULTURAL EDUCATION

Some agricultural training centers provide short courses for farmers, rural artisans, and horticulturalists. Four *centres des formation* offer 3-year programs leading to a CAP. Graduates generally enter the Park and Garden Service of the large cities, particularly Dakar.

Lower middle-level technical agents of agriculture, animal husbandry, forestry, and fishing are prepared in 4-year first-cycle secondary programs in the *écoles d'agents techniques*. There are three *écoles d'agents techniques*—one each for agriculture, agriculture and forestry, and animal husbandry. They had a combined enrollment of 329 students in 1967–68. Elementary school graduates may enter these programs after passing a competitive entrance examination.

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[23] Ibid. Unnumbered table on p. 27 of Technical Education section.

[24] This school is also referred to as the Centre Pédagogique d'Enseignement Technique Féminin.

[25] Vocational and technical education for women is described in detail in a recent but undated publication: République du Sénégal, Ministère de l'Enseignement Technique et de la Formation des Cadres. *La femme, éducation, formation, promotion*. Dakar, n.d. 33 pp.

[26] République du Sénégal, Ministère de l'Education Nationale *and* Ministère de l'Enseignement Technique et de la Formation Professionelle. op. cit. Unnumbered table on p. 32 of Technical Education section.

Higher middle-level technical agents (in the same fields as those of the lower middle level and in rural engineering) are prepared at the Ecole Nationale des Cadres Ruraux in 4-year programs, including 3 years at the second-cycle secondary level and 1 year at the postsecondary level. These programs enrolled 173 students in 1967–68. Entrance requirements include the BEPC and the passing of an entrance examination with academic, psychological, and physical components.

Higher level personnel are trained abroad, with the exception of veterinarians since a faculty of veterinary medicine has been established at the University of Dakar.

In addition to the above, a special teacher-training program exists to prepare instructors for the agricultural training centers. Graduates of the technical agents schools are eligible to enter this program, which lasts for 2 years.[27]

HIGHER EDUCATION

The University of Dakar, the main Senegalese institution of higher learning, consists of five faculties (law and economic sciences; medicine, pharmacy, dental surgery; letters and social sciences; science; veterinary science) and various institutes. Courses are generally for 4 years except those in the veterinary and medical sciences, which require 5 to 6 years.

In 1968–69, enrollments totaled 2,484 students, of whom 452 were women. The numbers of students from Senegal and other countries were as follows:[28]

Senegal	1,247
Other African Francophone countries	799
France	417
Other countries	21
Total	2,484

Among the Senegalese, letters and social science were the most popular courses, with 395 students. Local students in other fields included 253 in law, 230 in the sciences, and 193 in medicine and pharmacy.

The faculty in 1965–66 was comprised of 223 French professors and about 33 local teachers. In addition, other French professors and engineers were used for short teaching tours and for posts in the various institutes attached to the University.

STUDY ABROAD

Senegalese students studying in France under a French or a Government scholarship in 1967–68 totaled 210—63 financed by France and 147 by the

[27] République du Sénégal, Ministère de l'Enseignement Technique et de la Formation des Cadres. *L'enseignement et la formation professionelle agricoles au Sénégal.* Dakar, n.d. p. 27.
[28] These figures do not include the 418 students pursuing pre-university preparatory courses.

Government of Senegal. By level of study, 163 students were at the postsecondary level and 47 below. Except for six students studying in specialized institutions, all sponsored by France were at the postsecondary level. Of the 147 students financed by the Government of Senegal, 106 were at the postsecondary level, 37 in secondary-level technical studies, and 4 in specialized institutions.[29]

LITERACY EDUCATION

The Ministry of Popular Education operates a literacy campaign, which in June 1966 [30] had 69 centers and 2,740 attendees. Because 95 percent of the population is illiterate,[31] the program will require substantial growth to reach a significant number of illiterates. Major problems are shortage of funds, methodology, and language of instruction. Although French may be the most useful for urban illiterates, Wolof, spoken by an estimated 60 percent or more of the population,[32] would be more utilitarian in rural areas.

EDUCATIONAL EXPENDITURES

Financing

Senegal spent a total of 4.6 percent of its gross domestic product on education in 1961 as compared with 6.4 percent in 1964. These figures included external assistance, which constituted about 36 percent of the 1961 expenditures and 43 percent of those for 1964. As a proportion of the national recurrent expenditures, those for education increased from 20.6 percent in 1961 to about 25 percent in 1968.[33]

Capital expenditures fluctuate considerably from year to year in relation to total national expenditures. Including external aid, capital expenditures for education amounted to 19.5 percent and 8.8 percent of total public expenditures in 1961 and 1964, respectively. Since capital expenditures lead to higher recurrent costs, the proportion of total educational expenditures devoted to capital expenditures has generally declined from year to year (with certain years as exceptions due to an unusual amount of school construction). For example, although capital expenditures in 1961 and 1964 were roughly the same (1,348 million CFA francs and 1,253 million respectively), public capital expenditures in 1961 and 1964 accounted for 20

[29] République du Sénégal, Ministère de l'Education Nationale *and* Ministère de l'Enseignement Technique et de la Formation Professionelle. op. cit. Tables IV/5 and IV/6.

[30] P. Fougeyrolles, F. Sow, and F. Valladon. *L'éducation des adultes au Sénégal*. Paris: UNESCO—IIEP, 1967. p. 37. This publication gives a survey of all types of adult education.

[31] U.S. Department of State. *Background Notes: Republic of Senegal*. op. cit. p. 1.

[32] P. Fougeyrolles, F. Sow, and F. Valladon. op. cit. p. 45.

[33] Figures for 1961 and 1964 from: P. Guillaumont, D. Garbe, and P. Verdun. *Les dépenses d'enseignement au Sénégal*. Paris: UNESCO—IIEP, 1967. p. 17.
Figure for 1968 from: "Le Sénégal après les élections présidentielles," *Europe-France-Outremer*. Avignon: Imp. Presses de Provence, March 1968. pp. 10–11.

percent and 12 percent, respectively, of the total public educational expenditures.[34]

Thus, a major problem of expanding education is not so much one of capital expenditure for physical facilities and equipment, but rather one of whether national revenue is increasing sufficiently to handle the added recurrent costs involved, and whether the other sources of revenue, mainly external, can be depended upon to continue in the future.

In Senegal, although the state (including the local communities) is the major source of educational expenditures, it accounted for only 56 percent of total expenditures in 1964. Including the private sector, the total was 57.5 percent.[35] External assistance, therefore, is particularly important in the case of Senegal. This is true not only because of its substantial dependance upon external sources, but also because of the relatively slow growth of the economy now and in the foreseeable future.

France constitutes the major source of external aid, furnishing 79 percent in 1961 and 74 percent in 1964. (These figures reflect the increase of other external aid, because in absolute figures French aid actually increased during the period.) Of total external aid, the French proportional contribution to capital aid decreased substantially (from 70.5 percent in 1961 to 29.7 percent in 1964), while that to recurrent expenditures dropped very little (97.3 percent to 90.6 percent).[36]

The major multilateral contributor is the European Common Market through its European Development Fund (FED), which in 1964 provided almost 64 percent of the external capital expenditures.[37] Other important sources include the United Nations Special Fund and UNESCO.

The major bilateral contributors other than France are Canada, the Federal Republic of Germany, Israel, Switzerland, and the United States. The last named has assisted in scholarships, training courses, and construction projects, notably the *lycées* of Kaolak, Thies, and Dakar (Lycée John F. Kennedy). More recently, Canadian assistance has played an important role in constructing lower secondary schools.

Expenditures

By level.—Expenditures reflect the concern during the first years after Independence to expand elementary education substantially, and then subsequently to give priority to secondary education. In 1961 elementary-level expenditures accounted for 37 percent of the total, decreasing to 34 percent in 1964. Largely due to increases in vocational-technical education, secondary-level expenditures rose from 35.7 percent in 1961 to 37.4 percent in 1964. At the higher-education level, expenditures remained steady—21.7 percent—for the years under consideration.[38]

[34] P. Guillaumont, D. Garbe, and P. Verdun. op. cit. p. 43.
[35] Ibid. pp. 10–11.
[36] Ibid. pp. 25–26.
[37] Ibid. p. 25.
[38] Ibid. p. 19. Expenditures for administrative and extracurricular activities account for the other costs.

By purpose.[39]—In the public sector, expenditures for salaries increased from 56 percent of total costs in 1961 to 59.7 percent in 1964. This category of increase is to be expected as the educational system expands, but frequently it leads to economies elsewhere, normally in maintenance and material. Senegal represents the norm in this instance, since maintenance and material expenditures declined from 7.2 percent (1961) to 6.8 percent (1964). Obviously, these costs should increase as the system grows and a proportionate decline could lead to the deterioration of facilities and to a less effective learning process.

Expenditures for scholarships and other educational needs requiring external payment increased from 10.3 percent of total expenditures in 1961 to 13.6 percent in 1964. Such expenditures should decrease with expanding local educational opportunities, although the latter should only be provided where the manpower demand is adequate to justify the cost of establishing and maintaining local institutions.

Administration expenditures increased slightly during the period (7 percent in 1961 to 7.4 percent in 1964). This was at least partially due to the expansion of higher education, where administrative costs run higher than those of the lower levels.

Funds spent for construction and related major equipment needs (capital costs) varied from 19.2 percent of the total in 1961 to 12.1 percent in 1964. This decline, which continued in 1965, probably reflects the 1963 policy of slowing educational expansion.

Unit Costs [40]

Annual recurrent costs per public elementary school pupil in 1961 were slightly over $73 as compared to $71 in 1964. The major reason for this decrease was the reduction of expenditures for material and supplies, which on a unit basis amounted to approximately $3.40 in 1961 and $1.83 in 1964. Expenditures for personnel declined also, due to fewer technical assistance personnel and an increase in class size that more than offset salary increases accorded teachers during the 1963–64 school year.

In contrast with the elementary-level unit costs, those for the secondary level increased during the years under discussion. The average annual cost per student moved from $855 to $859 in the *lycées* and the normal schools, and from $1,037 to $1,272 in the vocational and technical schools. In all schools, personnel costs rose, and those for materials and supplies dropped by almost 50 percent.

Unit costs vary significantly among institutions due to variables such as teacher-student ratios and the inclusion or exclusion of lodging and board-

[39] Ibid. p. 20. Data on the private sector are not available.
With each item rounded to the nearest one-tenth percent, the actual total of percentages in this section is under 100 percent.

[40] Ibid. pp. 28–32. Although data on the private sector are partial and approximate, unit costs in the Catholic schools were estimated as $40 in 1964. Since the teaching staff of these schools includes members of religious orders, the substantial difference between costs in two sectors is due to salary expenditures.

ing facilities. Technical assistance personnel also increase costs. Vocational and technical schools expend much more for materials and supplies than other secondary schools.

Annual expenditures per pupil are also subject to considerable variation among the University faculties. For example, the Faculty of Law had the largest enrollment in 1964, very limited expenditures for scholarships, and subject matter lending itself to large-group instruction. The per pupil cost was many times lower than those of faculties with the reverse of such conditions. The average recurrent cost per university student amounted to $3,567 in 1961 and $3,265 in 1964. The $300 decrease was caused by a substantial enrollment increase.

ENROLLMENTS AND EFFICIENCY

Enrollments

Elementary.—During the first 6 years of Independence enrollments at the elementary level more than doubled. From 1959 to 1965 the annual average rate of increase amounted to almost 15 percent. Selected approximate enrollment figures during the years were as follows: [41]

1860	850
1940	21,000
1952	40,000
1958–59	93,000
1959–60	106,900
1964–65	206,431
1967–68	248,749

The enrollment target of the First Plan (1961–64) was to enroll 50 percent of the age group, but this target was never reached. The target of the Second Plan (1965–69), initially set at 43 percent, was reduced to 40 percent. In 1967–68, 1 year before the end of the Second Plan, enrollments reached about 38.4 percent of the age group.

The great increase in enrollment numbers indicates the urgent need to solve the problem of giving further education to elementary school graduates.

Secondary.—Enrollment growth rate of secondary education since Independence has been even greater than that of elementary education. During the 8 years from 1959–60 to 1967–68, secondary enrollments increased almost sixfold while elementary enrollments more than doubled. The number of students at each level for those years was as follows: [42]

	1959–60	*1967–68*
Elementary	106,900	248,749
Secondary	8,663	47,400

[41] Figures for 1964–65 and 1967–68 from: République du Sénégal, Ministère de l'Education Nationale *and* Ministère de l'Enseignement Technique et de la Formation Professionelle. *Statistiques scolaires: 1964–65* and *1967–68*. Table I/20.

Figures from 1959–60 through 1959–50 from: République du Sénégal, Conseil Economique et Social. *Etude sur la situation de la jeunesse au Sénégal*. March 1966. p. 48.

[42] Ibid. (*Statistiques scolaires.*) Tables I/20, II/22, III/4, 11, and 12, and p. 30.

The vast majority of secondary students are enrolled in the lower cycle. Chart 9 illustrates this situation for 1964–65, and since 1964 the Government has given considerable impetus to this cycle by constructing new C.E.G.'s. From 1964 through the 1967–68 school year, 133 C.E.G. classrooms were built and preliminary reports of the Third Plan (1970–73) call for 20 more.[43]

Efficiency

Elementary.—A major problem of elementary education is the high dropout rate. A 1960 study gave a dropout figure of 38 percent. A 1965 study presented the following approximate flow of students from the 1st grade through the course: 45 percent drop out before completing the course, 20 percent complete their studies and pass the CEPE or lower secondary entrance examination within the normal 6 years; 18 percent achieve the same results in 7 years, and 17 percent in 8 or 9 years.[44]

Secondary.—The 1965 study indicated that among Senegalese students at the C.E.G.s and *lycées*, 57 percent dropped out during the lower secondary cycle, 27 percent left because they failed the lower secondary terminal examination for the BEPC, 1 percent transferred into the technical- or normal-school track, and 15 percent entered the general upper secondary cycle. Of this 15 percent, 12 percent dropped out and 3 percent received the *baccalauréat*.[45]

Of all students enrolled in the lower secondary technical schools (excluding the lower secondary terminal courses), 26 percent dropped out before completing the lower secondary cycle, 62 percent dropped out during the upper cycle, and 12 percent received the *brevet* or *baccalauréat*.[46]

A 1961–62 survey reported that a significant proportion of graduates were not employed in the fields for which they were trained.[47]

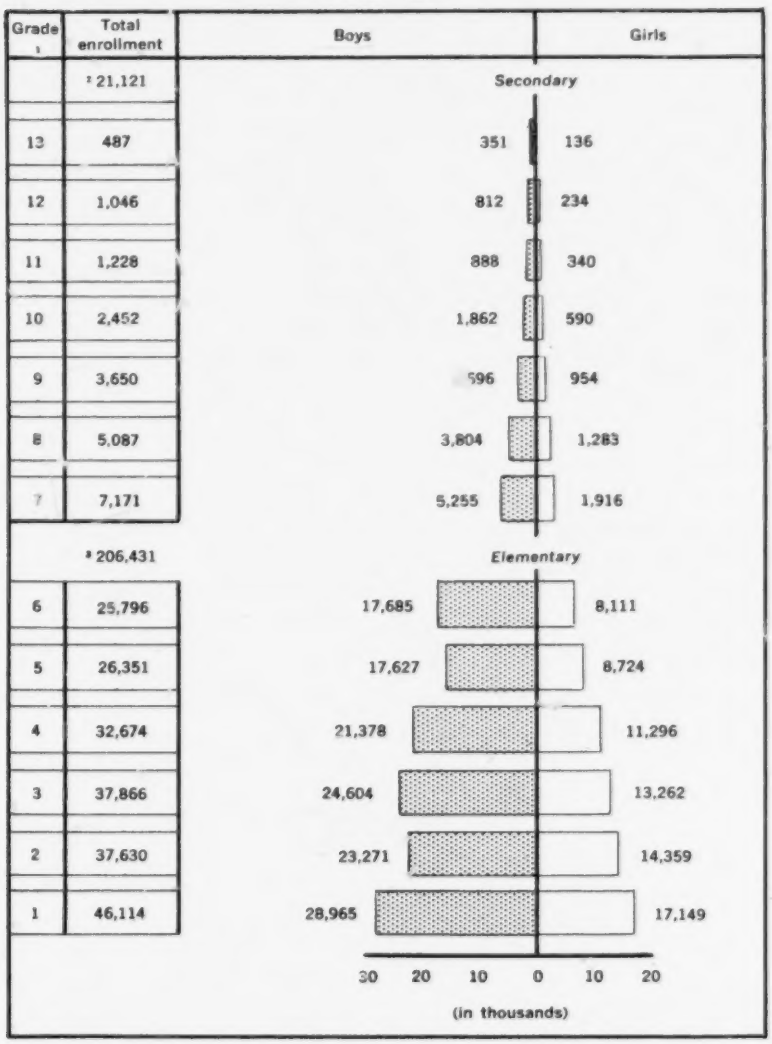
SUMMARY

Since 1960, educational development in Senegal has focused on quantitative growth. During the first half of the decade (the period of the First Plan), priority was accorded to elementary education, and during the second half, to secondary education. Higher education constituted a special case, since the University of Dakar, initiated in 1947, was expanded into a regional institution to serve French West Africa and, for a time, French Equatorial Africa. Thus, prior to Independence, the University was well developed, having in operation faculties of law, letters, medicine, and science.

This development since 1960 has been supported by substantial external

[43] "Le Sénégal après les élections présidentielles." loc. cit. pp. 10–11.
[44] République du Sénégal. Conseil Economique et Social. op. cit. p. 52.
[45] Ibid. p. 66.
[46] Ibid. p. 72.
[47] Ibid. p. 71.

Chart 9. Number of elementary and general secondary pupils in Senegal, by sex: 1964–65



[1] For clarity, the American system of grade numbering is used here. In Senegal, the grades in ascending order are termed, for the *elementary* level—preparatory course 1 and 2, elementary course 1 and 2, and middle course 1 and 2; for the secondary level—6, 5, 4, 3, 2, 1, and terminal.

[2] Total general secondary enrollment for 1967–68 was 47,400.

[3] Total elementary enrollment for 1967–68 was 248,749.

Source: République du Sénégal, Ministère de l'Education Nationale and Ministère de l'Enseignement Technique et de la Formation Professionelle. *Statistiques scolaires: 1964–65* and *1967–68*. n.p.

assistance. In overall and in bilateral assistance, France has been the major source; in multilateral assistance, the European Common Market has been the major source.

Now, however, since the system of education and training has grown and become a burden upon local resources, its relevance to national development is in question. The inefficiency of the elementary system and the question of further education for elementary graduates are problems. Inefficiency exists also at the secondary level, particularly in the "long" or two-cycle academic and technical tracks. The reduced output from these sources limits the intake potential of higher education. The appropriateness of certain studies is subject to question—such as in the academic classical track where professors of Latin and Greek are reported to be under-employed due to low enrollments. The validity of "long" technical studies has been challenged in relation to alternative solutions involving deferred but more intensive technical preparation.

The relevance of the higher education system to the socioeconomic needs of Senegal has been under discussion for a number of years. The case most obviously open to question is that of medical studies, where years of training are followed frequently by specialization, whereas the country is desperately short of general practitioners willing and able to cope with the needs of the populace. Another case in point has been the absence, until recently, of higher technical education. Now the Institut Universitaire de Technologie, although still operating under unsatisfactory conditions, appears to present a practical solution to development requirements. It prepares higher technicians in 2- or 3-year programs varying according to national manpower needs.

The reform of the system at the elementary and secondary levels is oriented towards—

1. Giving the mass of youth good postelementary practical training.
2. Eliminating the high-cost, inefficient vocational school and *lycée* programs at the first-cycle (lower) secondary in favor of a common program in the C.E.S.'s.
3. Expanding educational opportunity by establishing the C.E.S.'s in regions presently without first-cycle secondary schools.
4. Limiting academic and technical *lycée* and vocational school programs to the second-cycle (upper) secondary.

These reforms are reported to include new promotion policies. Elementary education will feature automatic promotion and C.E.S. students will be permitted to repeat only 1 year.[48] The former policy should increase the student flow through elementary education into the postelementary practical training course.

Although these reforms appear to be a major step in adapting education to the national needs, implementing them will require major efforts in curriculum development and teacher training. Further, it is not clear how

[48] Based upon discussions with expatriate personnel.

an effective, low-cost postelementary practical training program can be organized on a large scale within a relatively short time. Unfortunately, the lack of available information concerning program plans makes it impossible to comment further than noting the importance of the program and also the inherent difficulties of organizing and implementing it.

V. The Republic of Ivory Coast

SUMMARY OF CHARACTERISTICS

The People and the Land

In 1968, the estimated population of Ivory Coast was 4.7 million and was increasing at 2.3 percent per year.[1] The density is highest in the south and central regions of the country. More than 80 percent of the population is rural, living largely in villages with under 5,000 inhabitants. The urban centers include the capital of Abidjan with a population approaching 250,000, and eight towns ranging in size from 10,000 to 60,000 inhabitants.

The population is composed largely of eight major ethnic groups which may be subdivided further into tribal groupings. In the southern coastal regions, the Kru are located in the west with the Lagunaires occupying the east. In the central areas, the Mandefou are situated in the west with the Baoule in the center and the Agni to the east bordering Ghana. In the north, the Malinke are found in the west with the Senoufo in the central regions and the Lobi in the east. The Islamic influence is most important in the north, and Christianity in the south.

Possessing a square shape, Ivory Coast includes 127,520 square miles between the 5th and 10th parallels north of the equator. The country may be divided into three or four environmental regions with the coastal south constituting a tropical rain forest, bordered in the north by a transitional deciduous forest zone. The center consists of a savannah region giving way in the north to more arid savannah and semidesert regions. Neighboring countries include Liberia and Guinea to the west, Mali and Upper Volta to the north, and Ghana to the east.

The Economy

The agricultural sector plays a dominant role in the economy. The southern half of the country provides the cash crops and the northern half survives largely as a subsistence economy devoted to farming rice, maize, and cereals. Efforts to develop the central and northern regions have focused upon cotton, rice, and sugar cane. Exports are dominated by coffee, cotton, timber, and cocoa.

Industrialization, emphasized since Independence, has occurred pri-

[1] U.S. Department of State. *Background Notes: Republic of Ivory Coast* (Publication No. 8119). Washington: Office of Media Services, October 1968. p. 1.

marily in the Abidjan area because of the availability of power, an excellent port, and skilled manpower. Among the major industries are food processing, match production, and car assemblage; there is also a small amount of food production. Activities elsewhere are limited largely to scattered lumber mills and a textile center in Bouake.

The economy operates under the free enterprise system where private, mixed, and government firms cooperate and compete in an accelerated annual growth-rate situation estimated at over 8 percent since Independence.[2] In view of the limited educational programs of the pre-Independence era, the economic development of the country has resulted in major shortages of trained manpower which have been filled by expatriates. The Government has accepted this situation as necesary in order to expedite economic development while it has sought increasingly to prepare Ivorians to replace the Europeans.

The per capita income of the Ivorians in 1966 was placed at $245, making them one of Africa's most prosperous peoples.[3]

The Government and its Political Orientation

The Government, including the executive, legislative, and judicial branches, is closely linked to the single political party, the Democratic Party of Ivory Coast. However, the head of the Government—the President—is not at the same time the General Secretary of the Party as is the case in Guinea. Nevertheless, the pattern of occupying high party and Government posts is similar.

The Government's external policy is oriented to the West; it maintains particularly close ties with France. Its economic policy supports the free enterprise system. One of its major objectives is gradually to Africanize the private and mixed sectors as qualified personnel become available. The political stability and moderate policies of the Government have resulted in descriptions of Ivory Coast as an outstanding model of African development.

THE EDUCATIONAL SYSTEM

Policy Development

The development of education constitutes a major preoccupation of the country. Its problems are debated within the local and national Party conferences and recommendations are passed on to the Government. Since Party leaders serve frequently in decisionmaking positions in the executive and parliamentary branches of the Government, no problem exists in terms of the Party's conveying social pressures to the Government or the Government's relaying reactions and plans to the Party. This communication is

[2] République de Côte d'Ivoire, Ministère du Plan. *Première esquisse du plan quinquennial de développement: 1971-1975*. Abidjan. May 1968. p. 11.

[3] U.S. Department of State. *Background Notes: Republic of Ivory Coast*. op. cit. p. 4.

supplemented by dialog between the Government and both student and teacher organizations. Further, newspapers devote considerable space to educational programs and development problems.

Educational policy is influenced substantially by the close cooperation between Ivory Coast and France. For example, in 1964 the latter provided over 80 percent of the total external aid to educational development.[4] The total external aid is proportionately higher than that received by other sub-Saharan African countries, amounting to 28.3 percent of total educational expenditures in Ivory Coast in 1964.[5]

In the past few years educational policy has theoretically been based upon national development planning, and recently attempts have been made to strengthen this correlation because of the pressing national need for skilled manpower. Thus, in 1968, the education plan being prepared was based closely upon the estimated manpower requirements for the 1971–75 period.

Structure

Styled upon the French pattern, the educational structure, shown in chart 10, includes a 6-year elementary level (for the 6 through 11 age group) and a two-cycle secondary level. The structure of general academic secondary education consists of a first cycle of 4 years and a second cycle of 3 years; the structure of vocational-technical secondary education is quite complex, however, with 14 different tracks of varying durations. Postsecondary education is offered at the University of Abidjan and at five higher-training colleges; a technical institute and a commercial institute are in the planning stage.

Selective examinations control the passage from one cycle to the next. French is the language of instruction in all schools. About 30 percent of the school population at both the elementary and secondary levels are enrolled in private schools[6] which, for the most part, are operated by religious organizations and subsidized by the Government.

Administration

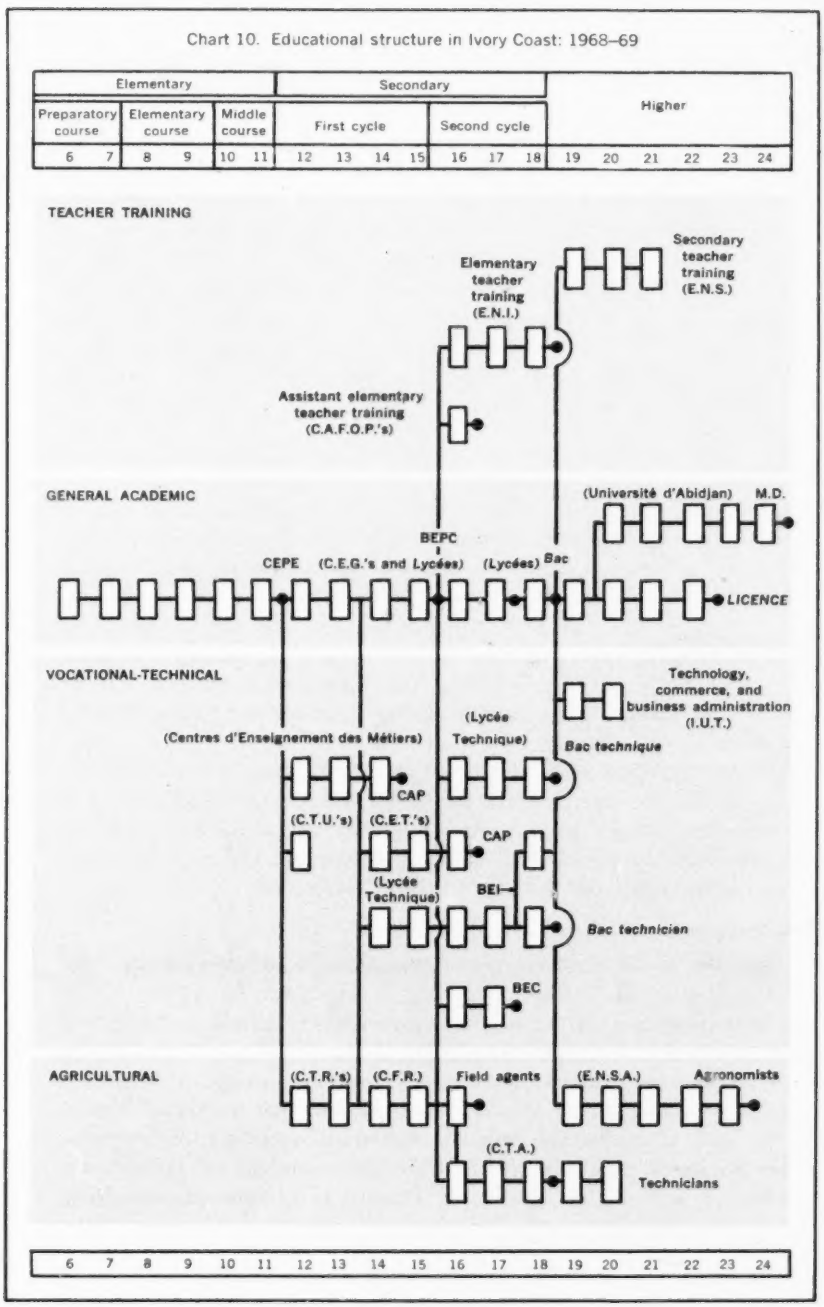
A number of ministries engage in educational administrative activities, but the Ministry of National Education is responsible for administrating and supervising most of the educational system. It controls the budgets of public institutions and allocates subsidies to private schools. The Ministry of Agriculture administers agricultural education through its Education and Vocational Training Service while the Ministry of Armed Forces, Youth, and Civic Service conducts important out-of-school programs. Other ministries, such as those of Public Health and Labor, operate special training schools. The Ministry of Finance, in addition to maintaining

[4] J. Hallack and R. Poignant. *Les aspects financiers de l'éducation en Côte d'Ivoire*. Paris: UNESCO—IIEP, 1966. p. 24.

[5] Ibid. p. 25.

[6] République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques: Situation de l'enseignement au 1er janvier 1969*. Abidjan. pp. 8 and 112.

Chart 10. Educational structure in Ivory Coast: 1968–69



KEY:

●=Examination

Degrees

Bac=*baccalauréat*
Bac technicien=*baccalauréat of technician*
Bac technique=*baccalauréat* in technical studies
BEC=*brevet d'études commerciales*
BEI=*brevet d'études industrielles*
BEPC=*brevet d'études premier cycle*
CAP=*certificat d'aptitude professionelle*
CEPE=*certificat d'études primaires élémentaires*
LICENCE=French degree, awarded after 4 years of postsecondary education
M.D.=doctor of medicine

Institutions

C.A.F.O.P.'s=*Centres d'animation et de formation pédagogiques*
C.E.G.'s=*collèges d'enseignement général*
C.E.T.'s=*collèges d'enseignement technique*
C.F.R.=Centre de Formation Ruralé
C.T.A.=Collège Technique d'Agriculture
C.T.R.'s=*Centres techniques ruraux*
C.T.U.'s=*Centres techniques urbains*
E.N.I.=Ecole Normale d'Instituteurs
E.N.S.=Ecole Normale Supérieure
E.N.S.A.=Ecole Nationale Supérieure Agronomique
I.U.T.=Institut Universitaire de Technologie

NOTE: For clarity, the American system of grade numbering is used here. In Ivory Coast, the grades in ascending order are termed, for the *elementary* level—preparatory course 1 and 2, elementary course 1 and 2, and middle course 1 and 2; for the *secondary* level—6, 5, 4, 3, 2, 1, and terminal.

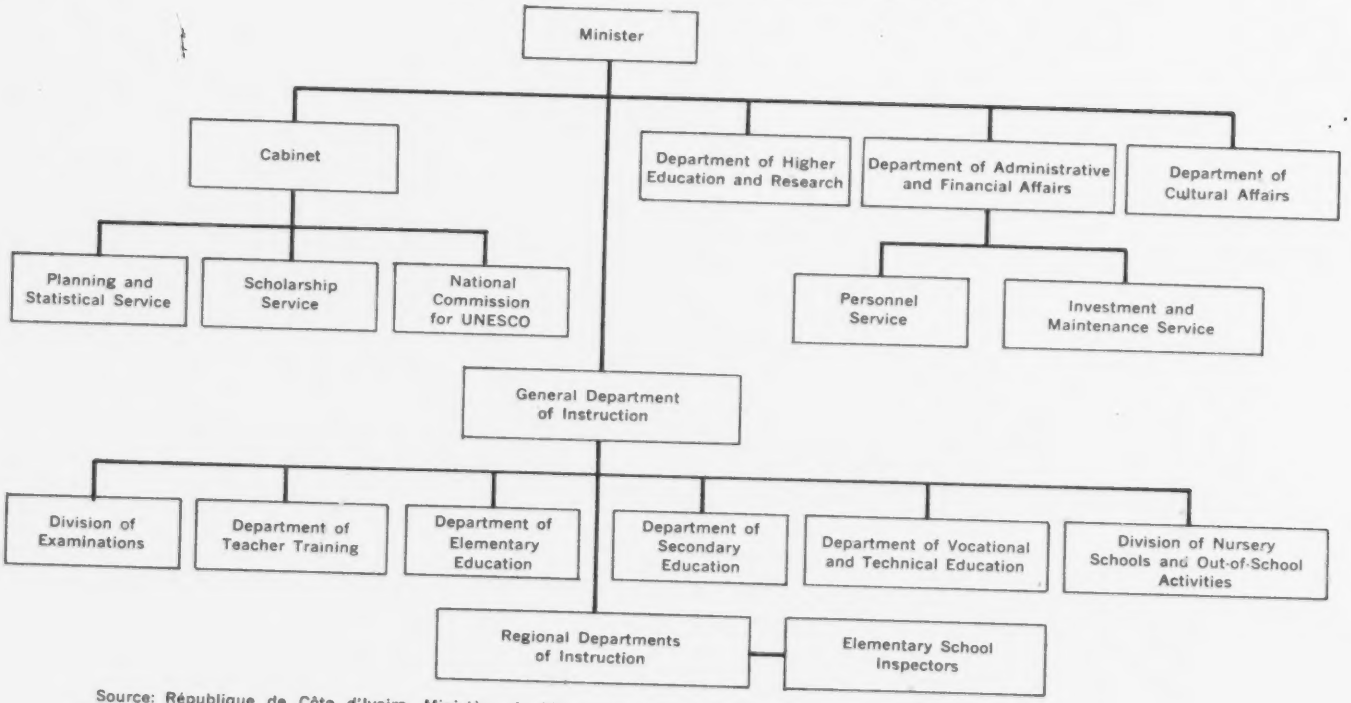
Source: République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques: Situation de l'enseignement au 1er Janvier 1969*. n.d. p. IV.

a school for statisticians, pays the national contribution for technical assistance to education from its budget. This consists of paying a portion of the salaries of French technical assistance personnel as well as their housing costs.

The Ministry of National Education has been undergoing a series of reorganizations in order to facilitate central planning and coordination on the one hand and improve regional and local implementation on the other. In 1963, the Minister and his cabinet dealt directly with nine departments. The difficulties of overall coordination and interdepartmental liaison led to reducing the departments linked directly to the Minister to four—the Departments of Financial Affairs, Administrative Affairs, and Higher Education and Research, and the General Department of Studies and Programs. Under the last named were assemblied: (1) five departments dealing with various levels and types of education; (2) three services dealing with planning and statistics, educational guidance, and health and nutrition; and (3) the regional inspectorates. Further changes were under consideration in 1966 to improve central coordination and planning and to strengthen curriculum development activities.

With the establishment of schools throughout the country, efforts to

Chart 11. Ministry of National Education in Ivory Coast: 1969



Source: République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques: Situation de l'enseignment au 1er Janvier 1969*. Abidjan, n.d. p. III.

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decentralize the administrative functions led to creating the regional inspectorates of Bouake and Daloa to relieve the Abidjan inspectorate of the northern, central, and western sectors of the nation. In 1965, a total of 11 elementary inspectorates were operating under these three inspectorates.

By Decree No. 69–04 of January 4, 1969, further reorganization of the Ministry took place, as indicated on chart 11. The General Department of Studies and Programs was renamed the General Department of Instruction. The Departments of Administrative Affairs and of Financial Affairs were merged into a single department, while a Department of Cultural Affairs was established. The Planning and Statistical Service was placed directly under the Minister's Cabinet—a logical move since the Service can now deal directly with all the departments. Further, the Scholarship Service was withdrawn from the former Department of Administrative Affairs and placed under the Cabinet; and the Examination Service was removed from the same department and placed as a division under the General Department of Instruction. The latter department also became responsible for a new Division of Nursery Schools and Out-of-School Activities. In the field, the Regional Inspectorates have been renamed Regional Departments of Instruction. These changes indicate an improved delineation between staff and line functions and a strengthening of field operations and hence of decentralization. The former Services of Guidance and of Health and Nutrition are not indicated on the 1969 organization chart.

Administrative problems commonly cited include those of overall coordination, imbalance of personnel between various departments and services, a shortage of qualified personnel, insufficient specification of functions, and an inadequate regional and local administrative network. The central administration's problems are compounded by the dispersion of departments and services throughout the city of Abidjan.

ELEMENTARY EDUCATION [7]

Objectives

The various official statements concerning the objectives of elementary education reflect an ambivalence between the pursuit of the European model and adaptation of the school to local realities. The tendency to confuse the ends and the means of education and to generalize rather than specify objectives in terms of desired behavioral results has further complicated statements. However, a renewed focus upon objectives has resulted from the growing mass of partially educated elementary school leavers who have been withdrawn from the traditional African culture but not integrated into a new one.

[7] Preelementary education is limited to a few schools and classes located largely in Abidjan and Bouake.

In the fall of 1966, the Minister of National Education requested the Academic Inspector of Bouake to undertake some experiments based upon ruralizing education. In this case, providing the basic skills with an emphasis on the French language remained the major objective of the first 4 grades, and cultivating attitudes favorable to agriculture became a key objective of the last 2 elementary grades. Measures to implement these objectives on an experimental basis were under consideration in the late fall of 1966.

However, since the elementary system is a close copy of the French one, it generally functions as an instrument to prepare pupils for further education. Unfortunately, most pupils in Ivory Coast cannot gain access to secondary education. This paradoxical situation necessitates a redefinition of objectives and programs. But even if a new, adapted system were perfected, public opinion might reject it as less than the best unless the reform were preceded by a convincing campaign to demonstrate its need.

Curriculum

The Ivory Coast curriculum follows the French one, except that it devotes more time to the French language because it represents a foreign language to most pupils. The 6 elementary years are divided into three 2-year programs referred to as the preparatory course (1st and 2d years), the elementary course (3d and 4th years), and the middle course (5th and 6th years). The program for each year consists of 30 hours weekly. The emphasis upon French and the language arts is demonstrated by the fact that, during the first 4 years, these subjects consume 17½, 18½, 15, and 15 hours, respectively, of the weekly total of 30. During each of the last 2 years, these subjects account for 11½ hours of the 30. Since arithmetic represents the only other subject receiving considerable attention, the 6-year program is monopolized by the 3 R's.

Successful students receive the *certificat d'études primaires élémentaire* (CEPE) after the 6th year, as shown in chart 10.

Teaching methods are usually quite bookish because the low qualifications of the majority of teachers force them to follow the textbooks closely and mechanically. Since most of the textbooks are French, the teacher should omit inappropriate content and add pertinent local material; however, having inadequate general education and little or no professional training, most teachers are unable to do so.

Elementary enrollments totaled 407,609 in 1967–68.[8] Further enrollment data are given under Enrollments and Efficiency.

Teachers

With very few exceptions, the elementary school teachers are Ivorians. In 1967–68, of the total of 8,818 private and public elementary school teachers, only 543 were fully qualified teachers, holding the *baccalauréat*

[8] République de Côte d'Ivoire, Ministère des Affaires Economiques et Financières. *Situation de l'enseignement en Côte d'Ivoire au 1er janvier 1968*. Abidjan. p. 17.

(which requires 13 years); 3,703 were assistant teachers, holding the BEPC (the lower secondary certificate which requires 10 years) and having 1 year of teacher training; 2,055 were monitors, having from 7 to 10 years of education, and 1,960 were assistant monitors, having only 6 years.[9]

Many reports, including those of the Government, are critical of the quality of instruction and cite as major causes the poor education and the absence of professional commitment of most teachers. After stabilizing elementary enrollments, the Ministry of National Education began a series of remedial measures including increased inservice training through radio, correspondence courses, conferences, publications, and the addition of pedagogical advisors to supplement the meager force of elementary inspectors. Further, new teachers are required to have 10 years of education and 1 full year of professional training.

Schools and Equipment

School facilities vary considerably between urban and rural areas. In towns, concrete construction is common, but in the more remote regions, earth and bamboo structures are to be found. In general, the interior of these buildings is barren and the furniture unsuitable by Western standards.

Equipment is inadequate. Libraries are nonexistent and blackboards too small for proper utilization. Instructural materials such as charts and arithmetical counters are virtually unknown. Textbooks and notebooks are furnished by the state, but these deteriorate rapidly through lack of care. Still, conditions are no worse, and perhaps better, than in the other countries under discussion.

GENERAL SECONDARY EDUCATION

Structure and Objectives

The purpose of general secondary education is to provide academic preparation for the University or for various types of vocational or technical training. The first and second cycles consist of 4 and 3 years respectively. Entrance into the 7th grade[10] is based upon a selection of students holding the elementary school-leaving certificate (*certificat d'études primaires élémentaires* or CEPE, known also as the CEP). Entrance into the 11th grade, the 1st year of the second cycle, is gained through a major examination at the end of the first cycle which results in the lower secondary certificate (*brevet de fin d'études du premier cycle* or BEPC; the word "fin" is omitted frequently). The two-part *baccalauréat* examination, required for university entrance, is given at the end of the

[9] Ibid. p. 14.

[10] For clarity, the American system of grade numbering is used here. In Ivory Coast, the grades in ascending orders are termed, for the secondary level—6, 5, 4, 3, 2, 1, and terminal.

12th and 13th grades. (Unless followed by descriptive terms such as *"technique,"* the *baccalauréat* indicates a diploma in academic studies.)

The general secondary schools are known under different designations. The *collèges d'enseignement général* (C.E.G.'s) provide only first-cycle education; the *lycées* provide both the first and second cycles. Former normal schools, now offering general education, offer only the second cycle. Branching into vocational and technical education takes place after the 6th and final year of elementary education, after the 8th grade, and after the 10th grade.

Curriculum

The curriculum follows that of France with some alteration of content, notably in the areas of geography and history. In science studies, local flora and fauna have replaced those of Europe, and works of a few Africans, such as L. Senghor, A. Diop, and R. Dadie, are included in the French literature courses.

Periods per week usually total 29 over a 9-month school year (September 25–June 25). The lower secondary program of studies varies somewhat between the *"cycle court"* (short academic cycle), which is generally terminal or followed by vocational or technical training, and the *"cycle long"* (long academic cycle), which leads to the *baccalauréat* and the University. Upper secondary education consists of two major tracks, the classical and the modern. The latter offers specialization in mathematics, modern languages, or science. In the terminal year, philosophy is added to the subjects of each track.

Changes in the curriculum are presently under study in order to improve the productivity of general secondary education. Among the measures to be introduced are special classes for low achievers, using new instructional methods, reduction in the number of hours allocated to minor subjects, changes in the *baccalauréat* examination, the use of audiovisual media, and the introduction of practical subjects beginning in the first cycle.

General secondary enrollment reached 38,556 in 1967–68. This figure included 1,096 students in secondary-level normal schools.[11] Further enrollment data are given under Enrollments and Efficiency.

Teachers

The 1967–68 teaching staff in the public general secondary schools totaled 1,116 instructors. Of this number, 927 were expatriates, and 89—only 9 percent—Ivorians.[12] During the past few years, there has been a proportionate decrease in the number of Ivorian teachers for they constituted 23 percent of the total staff in the 1961–62 school year. About 53 percent of the administrative staff were French in 1964.

Although the qualifications of teachers are said to have improved some-

[11] Ibid. Table 28.
[12] Ibid. p. 30.

what in the past few years, in 1962–63 the majority of the lower secondary teachers possessed elementary school teacher credentials and about half of the staff in the upper secondary cycle had the appropriate certificate. The number of teaching periods required per week varies by qualifications. Teachers with the lowest qualifications teach 22 periods weekly while those with the highest instruct 15 periods. Teacher-pupil ratios in 1967–68 were 1:34 at both the first and second cycles.

Schools and Equipment

A total of 101 schools (65 public and 36 private) were offering secondary general education in 1967–68.[13] The physical plants are generally adequate although special rooms such as libraries and science laboratories are inadequate in some schools. Libraries are not used as in the United States and their stock of books is extremely limited.

The use of audiovisual media is rare, not only because there is a shortage of equipment and materials, but also because teachers do not understand the media and the course of studies does not have a systematic utilization program. Thus the textbook and the blackboard constitute the major tools of instruction. However, instructional television is being planned, with limited broadcasts scheduled to start during the 1971–72 school year.

TEACHER TRAINING

Elementary School Teachers

The old training system of preparing elementary school teachers in a variety of programs has been abandoned since 1966–67 for a more rational system in which all candidates, following completion of first-cycle secondary education (grade 10), will receive 1 year of professional training and be certified as *instituteurs-adjoints* (assistant elementary school teachers); or 3 years of training and be certified as *instituteurs* (elementary school teachers).

The 1-year schools are known as *centres d'animation et de formation pédagogiques* (C.A.F.O.P.'s and the 3-year institution, yet to be established, will be called the Ecole Normale d'Instituteurs (E.N.I.) at Bouake. The latter institution was scheduled to open in October 1969. Until the first class graduates from the E.N.I., only assistant elementary teachers will be produced.

The C.A.F.O.P.'s are in operation and more are to be established. Their program of studies includes moral and civics education, general education, professional training, and adult education, including agriculture and technology. The program is designed to prepare candidates for a planned reorientation of elementary education that will encompass more practical training and use educational television. In addition, the candi-

[13] Ibid. p. 28.

dates will be trained to participate in community development activities.

These schools include full boarding facilities. Complete scholarships are provided to students signing a 10-year contract as teachers. In addition, the C.A.F.O.P.'s serve as inservice training institutions for teachers located in the vicinity.

The planned E.N.I. (Elementary School Teacher-Training Institute) is viewed as the key institution in transforming elementary education. It will include (1) the teacher-training component, (2) an educational research section to evaluate the instructional television and inservice training programs, and (3) the television production center. The program of studies will comprise both general and professional education, including training in producing and using instructional television.

Also being planned are E.N.I.-attached experimental schools including a C.A.F.O.P. and two elementary schools for research and practice-teaching purposes. A third elementary school will be used by the TV production center for telecasts.

Some of the graduates of the E.N.I., after a few years of teaching experience, will be employed as school supervisors to supplement the work of the elementary school inspectors. Others will be selected to pursue further studies at the Ecole Normale Supérieure (Higher Teacher-Training College—E.N.S.).

The production of elementary teachers has never met the demand for them due to the rapid expansion of enrollments. Given the relative stabilization of these enrollments for the present, and the plans to construct more C.A.F.O.P.'s and the E.N.I., the output of teachers may match the annual demand within the next few years.

Secondary School Teachers

Both first- and second-cycle secondary teachers are prepared at the E.N.S., where enrollments in the two programs totaled 305 in the 1967–68 academic year. In addition, 86 students were enrolled in the preparatory (freshman) year and 12 in the program for elementary school inspectors. Output has been low but increasing from 5 in 1963 to 42 in 1968.[14]

This low output is due partially to the small number of secondary school graduates and the relatively diverse opportunities for further study at the postsecondary level. Related to this situation is the attractiveness of studies leading to occupations other than teaching, where the potential for advancement is much more restricted.

Thus, there is no prospect of replacing French teachers with Ivorians for years to come. This may mean that secondary education will retain an impersonal relationship between teacher and pupil which may be advantageous in terms of discounting tribal differences, but disadvantageous in terms of close communication and the real adaptation of the system to local needs.

[14] Ibid. pp. 65–66.

VOCATIONAL AND TECHNICAL EDUCATION

The Ministry of National Education operated 20 schools in 1968–69 with enrollments totaling 4,020 students, excluding those in evening courses.[15] Other ministries (excluding the Ministry of Agriculture) maintained 17 training schools for the preparation of medical assistants, administrative officials, postal and public works employees, sports instructors, and similar categories of personnel. During 1964–65, 26 private schools provided education to about 1,500 day students and 970 night students.[16]

At the vocational level, training is provided for elementary school graduates in the 2-year *centres techniques ruraux* (C.T.R.'s) and in the 1-year *centres techniques urbains* (C.T.U.'s), within the Ministry of National Education program and in the 3-year *centres d'enseignement des métiers;* and, for students completing the 8th grade, in the *collèges d'enseignement technique* (C.E.T.'s) (see chart 10). These latter schools were formerly *centres d'apprentissage,* which are now offering more sophisticated training in industrial and commercial subjects leading in 3 years to the CAP (*certificat d'aptitude professionelle*). The C.T.R.'s were originally established to train versatile artisans for rural areas, but they are now producing skilled workers for salaried employment, as do the urban centers. Both of these types of centers employ accelerated training techniques without leading to a formal certificate such as the CAP. Their enrollments in 1968–69 totaled 1,406.[17]

At the technical level, the Lycée Technique of Abidjan is the major school offering the *brevet d'études commerciales* (BEC) and the *brevet d'études industrielles* (BEI) after the 12th grade, and both the *baccalauréat technique* and the *baccalauréat technicien* after the 13th grade. The latter *baccalauréat* is based upon a greater proportion of practical work than the former and it is contemplated that most graduates will enter either the higher technician training (practical engineers) institute when it is opened or the world of work (although entrance into the University is not excluded).

The school produces less than the current personnel requirements for technicians in the industrial and commercial sectors of the economy. In spite of this significant shortfall, the terminal graduates of the industrial sections do not always find positions and many seek to continue their studies. There is a long-standing complaint on the part of employers that the graduates lack practical training and have salary and job expectations beyond their performance capacity.

Three technical schools for girls prepare workers in the fields of child-

[15] République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques: Situation de l'enseignement au 1er janvier 1969*, loc. cit. pp. 138 and 140–42.

[16] République de Côte d'Ivoire, Ministère de l'Education Nationale. (Based upon author's interviews with local educational personnel.)

[17] République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques: Situation de l'enseignement au 1er janvier 1969*, loc. cit. pp. 149 and 150.

care, home economics and sewing. The establishment of more of these schools is under consideration.

The technical school teachers are expatriates for the most part. In 1968–69, the 229 teachers employed by the Ministry of National Education at the *lycée* and *collège technique* levels included 194 foreign personnel—80 percent of the total staff. Teachers for the *centres techniques ruraux* and *centres techniques urbains* totaled 108, including 51 foreign staff.[18]

In spite of the absence of a training program for Lycée Technique teachers, the Government plans to open two new *lycées* within the next few years. These schools, with enrollments of about 1,000 students each, are deemed necessary to meet manpower requirements and will contribute eventually to the presently nonexistent supply of candidates for further studies leading to teaching posts in the technical *lycées*.

A new series of institutions are under way or in the planning stage for preparing higher technicians. Referred to under the general title of *instituts universitaires de technologie* (university institutes of technology—I.U.T.'s), these institutions will be associated with the University of Abidjan. The I.U.T. de Commerce et d'Administration des Entreprises (I.U.T. of Commerce and Business Administration) was opened in 1967. In 1968, technology courses were opened at this institute; and since its programs were no longer confined to commerce and business administration, it became known simply as the Institut Universitaire de Technologie. Early in the 1970's, the Institut National Supérieur de l'Enseignement Technique (National Higher Institute of Technical Education) was to be in operation. This school may offer a program leading to an engineering degree as well as one for higher technicians.

AGRICULTURAL EDUCATION

A responsibility of the Ministry of Agriculture, agricultural education has undergone considerable diversification in the past few years. Originally geared primarily to preparing agricultural technicians for the Government, the program now includes training for farmers, rural youth, and agronomists.

The Centre de Formation Rurale (C.F.R.) constitutes the lower secondary section of the agricultural secondary school at Bingerville, a town about 10 miles east of the capital city, Abidjan. Government field agents (*moniteurs*) are trained at this center in a 3-year program following the 8th grade. The first 2 common years of general and agricultural science education are followed by a year of specialization in agriculture, animal husbandry, or forestry. One-fourth of the students entering the terminal (3d) year are admitted to a special class which prepares them for the

[18] Ibid. pp. 152–54.

entrance examination to the upper secondary program. Enrollments totaled 117 in 1967–68 and 108 in 1968–69.[19]

This 3-year secondary program has been under steady criticism as too theoretical for the level and type of work performed by these graduates. As a result, one of the major potential employers, the mixed or semi-public agricultural development companies (*sociétés développement*) train their own personnel at this level.

The Collège Technique d'Agriculture (C.T.A.), the senior section of the Bingerville school, operates a 5-year program to prepare technicians (*conducteurs*). This program is open to BEPC holders (10th-grade graduates) while admission to the last 2 years of specialized training may also be gained through a *baccalauréat*-level entrance examination.

The first 3 years include general and agricultural science education; the last 2 years, specialization. Candidates in animal husbandry pursue their 2 years at Bingerville, while those in forestry attend special schools at Bouake and Banco. Students in agriculture receive 2 years of special on-the-job training.

In 1968–69 enrollments in the 3-year basic course totaled 203 students, including 138 Ivorians and 65 other West Africans. Enrollments in the final 2 years totaled 26, all Ivorians.[20]

The curriculums of this program are criticized as too theoretical and overburdened, and the course material as inadequatedy related to local agricultural development. On the other hand, curriculum improvements have been made recently, particularly in farm management. The problem of practical training is partially a consequence of the lack of farmland, workshops, and laboratories. Plans exist to relocate the school at Bouake in order to overcome the land restrictions and to place the training in a more rural environment. The program is considered unnecessarily long, but this problem is tied to legalities requiring these technicians to have a certain amount of general education. As the number of students entering the upper cycle of general secondary education increases, more students will become available for transfer into it after the first 2 years of general upper cycle secondary education and the training may be limited then to 2 or 3 years of specialized education.

The reduction in program length should lower recurrent costs, which are now much higher than those of general education and thus permit the production of more technicians. At the present time, the demand greatly exceeds the supply. This imbalance appears likely to continue in the forseeable future.

The semipublic agricultural development companies maintain their own training programs, which are reported to be effective. In addition to on-the-job training, these companies operate several practical schools of agriculture that provide short sandwich courses. Over 1,000 employees

[19] Le Thanh Khoi. *Côte d'Ivoire, enseignement agricole.* Paris: UNESCO, July 1970. p. 3.
[20] Ibid. p. 12.

were reported to have participated in these training programs in 1966–67.[21]

Farmers' training is provided by extension agents some of whom are furnished by the companies mentioned above. Other training programs include private farm schools and agricultural and civic education offered in rural youth camps to young men for 1 year. The camp program is experimental. Operated by the Ministry of Youth and Sports, it is reported to have led many former participants to desert rural regions for urban ones. For this reason the program may be dropped, although some form of mass inexpensive rural training scheme at the postelementary level appears necessary for the thousands of elementary school leavers unable to continue their schooling or find jobs.

University-level agricultural studies are offered at the recently established Ecole Nationale Supérieure Agronomique (National Higher School of Agronomy—E.N.S.A.). In addition to preparing agronomists for the Ivory Coast and other Francophone West African countries, this school will train agricultural teachers for the previously mentioned Collège Technique d'Agriculture (C.T.A.). Enrollments totaled 42 in 1967–68 and 52 in 1968–69.[22]

HIGHER EDUCATION

As a first step in developing a university, the Government opened the Center of Higher Studies in 1958 as a dependency of the University of Dakar. In 1960, it was transformed into the Center of Higher Education and associated with the University of Paris. In October 1963, the Center became the University of Abidjan. The campus of the University is located near the sea some 5 miles east of Abidjan between the capital and Bingerville. The first buildings were opened in the fall of 1964.

The University has faculties (schools or departments) of law, letters, medicine, and science, and several other institutes and schools. Among the latter are the previously mentioned E.N.S., E.N.S.A., I.U.T., and the Ecole des Travaux Publics (School of Public Works), Ecole des Beaux Arts (School of Fine Arts), and the Ecole des Postes et du Génie Civil (School of Postal and Civil Engineering).

In 1968–69, enrollments within the four faculties and the I.U.T. totaled 2,566 students, of whom 1,117 were Ivorians, 757 other Africans, 606 French, and the remainder from diverse nations. These figures include 524 students of whom 289 were Ivorians pursuing the subprofessional law course leading to the *capacité en droit*.[23] Total enrollments in the other institutes and schools are not available.

The output of the University is low both because there are still a

[21] Interviews with Republic of Senegal authorities and French technical assistance personnel.
[22] Le Thanh Koi. op. cit. p. 3.
[23] République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques: Situation de l'enseignement au 1er janvier 1969*. loc. cit. p. 163.

limited number of secondary school graduates (*baccalauréat* holders) and also because the percentage of students failing university examinations is high—72 percent in the examination for the *capacité en droit* and 37 percent in other examinations in 1966.

STUDY ABROAD

In 1968–69, there were 450 Ivorian students in France on local (401) or French (49) scholarships. Of the total, 415 were studying at the post-secondary level and 35 at the secondary or specialized school levels.[24]

OUT-OF-SCHOOL EDUCATION

Aside from various relatively minor programs cited briefly in previous sections, Ivory Coast has no major programs outside the formal school system. A major program is to be initiated between 1971 and 1975, aimed particularly at rural youth.[25]

EDUCATIONAL EXPENDITURES[26]

Financing

Ivory Coast spent 3.2 percent of its gross domestic product on education in 1964 and in 1965. When foreign assistance is added, the percentage increases to 4.5. In 1960, the comparable figures (without and with foreign aid) were 3.2 and 3.9 percent, demonstrating the huge increase in foreign aid between 1960 and 1965. In 1966, the national expenditure rose to over 3.3 percent and by 1975 it is expected to reach 4.3 percent.

Capital expenditures amounted to a little less than one-fifth of the 4.5 percent in 1964. External sources contributed about three-fourths of all capital expenditures during that year.

The percentage of total national recurrent expenditures devoted to education increased from 16.7 percent in 1960 to 22.6 percent in 1964. During the latter year, capital expenditures for education amounted to 2.6 percent of the total national budgetary allocations for such expenditures.

The major financial source for both public and private education is the national budget. In 1964, the percentage of support from various sources for public and private schools was as follows:

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[24] Ibid. pp. 165–67.

[25] République de Côte d'Ivoire, Ministère du Plan. *Travaux préparatoires au plan 1971–1975. deuxième esquisse formation.* Abidjan, March 1970. pp. 19–20.

[26] The two major sources for data on finances and costs presented in this section are the following monographs: J. Hallak and R. Poignant. *Les aspects financiers de l'éducation en Côte d'Ivoire;* L. Cerych. *L'aide extérieure de la planification de l'education en Côte d'Ivoire.* Paris: UNESCO—IIEP, 1966 and 1967, respectively.

The data presented in this section are the latest available to the author in comprehensive and detailed form.

	Public	*Private*
National Government	69.0	82.8
Other national sources	0.7	13.6
Foreign aid	30.3	3.6

Expenditures by the National Government for public education were about 10 times those for private.

The contributions of local communities to public education is minimal, consisting of labor for elementary school construction and a small but indeterminable amount of the budget of the communes (middle-sized and large towns) for maintenance and furnishings.

Private sources include tuition fees charged by private schools, but most of these schools, sponsored by religious organizations, charge only a few dollars a year per child. These fees and contributions by private enterprises are included in the 13.6 percent from other national sources noted above.

Industrial concerns contribute to the financing of education through paying the Government an apprenticeship tax, on the principle that skilled workers for industry are produced through the school system. In addition, many firms contribute indirectly through the operation of on-the-job training programs.

External or foreign aid plays an important financing role in Ivory Coast, contributing between 25 and 31 percent of total educational expenditures in the mid-1960's.[27] In 1964, 68 percent of external aid funds went for capital costs and 24 percent for recurrent costs. In terms of levels, little was provided for elementary education, but about 30 percent of total expenditures on secondary education and 60 percent of total expenditures on higher education came from external aid sources. These figures reflect the external support allocated for the university construction program.

France is the largest source of external aid, contributing 80 percent of all external aid in 1964 and 90 percent of all bilateral aid. The second most important contributor, and the first of multilateral sources, was the European Development Fund (of the Common Market). The United States and the United Nations Special Fund were in third and fourth place. French assistance is provided for all types and levels of education; other donors tend to concentrate on specific sectors.

The amount of external assistance is high, comparable or superior to that given most Francophone African countries, 3 or 4 times that provided to individual Anglophone African countries, and far beyond the aid extended to developing countries in Asia or South America. However, given the tendencies of both multilateral and bilateral aid at the present time, as well as the relative prosperity of Ivory Coast, it is likely that external aid will decline in the 1970's. Less capital assistance is in

[27] External assistance amounted to approximately $12 million in 1964.

prospect although technical assistance, particularly from France, may increase slightly in years ahead.

Expenditures

By educational level or type.—The percentage of recurrent expenditures for each level or type of education in 1964 and 1968 was as follows:[28]

Level or type	*1964*	*1968 (est.)*
Elementary	35.3	39.2
Secondary		
General	28.1	38.3
Teacher training	3.1	4.0
Vocational-technical	12.1	9.5*
Total	43.3	51.8
Higher	13.6	5.8
Other		
Out-of-school	4.4	...
Administration and common services	3.4	...
Total	7.8	...
Grand total	100.0	100.0

*For agricultural education, 1.9 percent; for other vocational-technical, 7.6 percent.

By purpose.—In 1964, expenditures for public education were divided as follows:

Salaries	69.2
Maintenance and materials	17.5
Scholarships	7.9
Administration	4.8
Social (undefined)	0.6
Total	100.0

Private school expenditures for salaries in the same year were similar to those cited above, but expenses for maintenance and materials were higher (24.8 percent) and those for scholarships and undefined social expenditures were lower (6.2 percent).

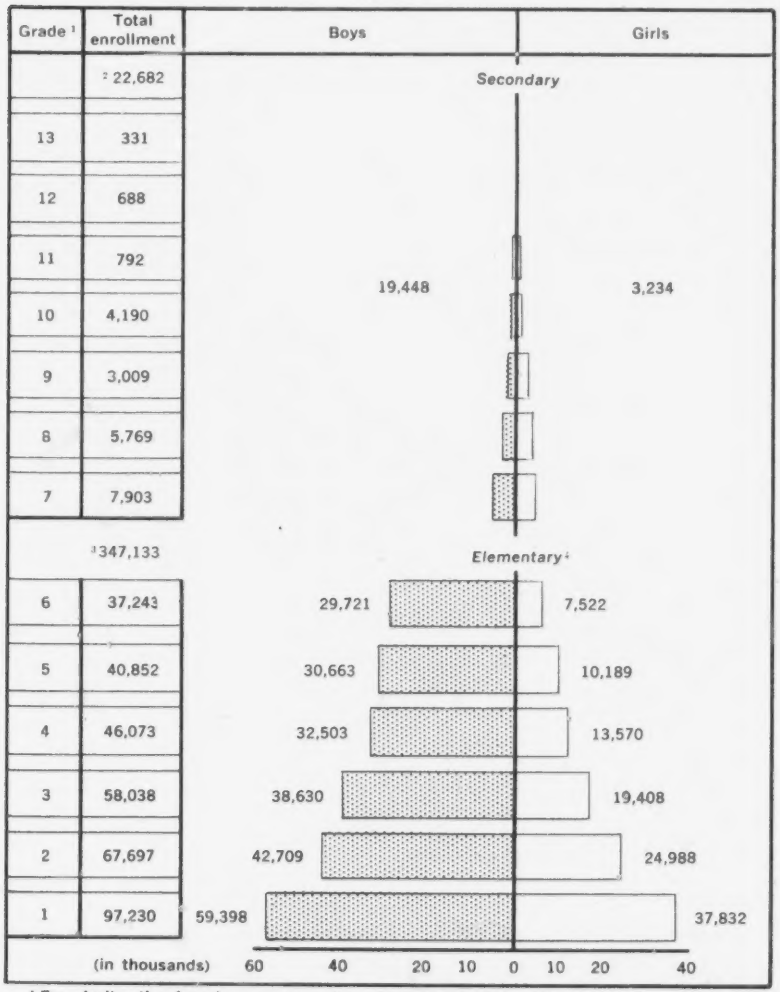
Unit Costs

In 1967–68, approximate yearly recurrent costs per pupil and the total costs per graduate (taking into consideration the cost of repeaters and dropouts), were estimated as follows for each level or type of school:[29]

	Pupil	*Graduate*
Elementary	$54	$540
Lower secondary	410	2,160
Upper secondary	580	2,400
Technical secondary	2,280	15,200
University undergraduate	4,000	24,000

[28] Figures for 1968 from: République de Côte d'Ivoire, Ministère du Plan. *Eléments pour une loi-cadre de l'enseignement.* Abidjan, March 1968. pp. 107–33.
[29] Ibid. p. 105–29.

Chart 12. Number of elementary and secondary pupils in Ivory Coast, by sex: 1964–65



[1] For clarity, the American system of grade numbering is used here. In Ivory Coast, the grades in ascending order are termed, for the *elementary* level—preparatory course 1 and 2, elementary course 1 and 2, and middle course 1 and 2; for the *secondary* level—6, 5, 4, 3, 2, 1, and terminal.

[2] Includes elementary teacher-training students. Of the 22,682, 19 percent were in private schools. The comparable enrollment for 1967–68 was 38,556 students; the enrollment including vocational-technical students was 41,960.

[3] Of the 347,133, 27 percent were in private schools. Total enrollment for 1967–68 was 407,609 students.

[4] Average age at the beginning of the school year for each elementary grade was as follows: 1—7 years, 9 months; 2—9 years, 3 months; 3—10 years, 6 months; 4—11 years, 6 months; 5—12 years, 7 months; 6—13 years, 9 months.

Source: Côte d'Ivoire, Ministère de l'Education National. (Data were provided to the author by local officials.)

The cumulative cost of producing a university graduate—the total of the elementary, lower secondary, upper secondary, and university undergraduate levels—was therefore about $29,100. (This figure is only an approximation, since unit costs for 1967–68 are applied for each year of the graduate's entire school career and capital costs are not included.) The average annual per capita income in Ivory Coast is about $200.

The reasons for the high recurrent unit costs per pupil and per graduate include the following:

1. The large number of expatriate teachers who receive about twice as much pay as their Ivorian counterparts with equal qualifications
2. The cost of boarding over 70 percent of all secondary school students
3. An extensive scholarship program
4. The small and thus uneconomical size of many schools
5. The low number of teaching hours required of secondary and postsecondary teachers
6. The low student-teacher ratios.

ENROLLMENTS AND EFFICIENCY

Enrollments

Elementary.—Since Independence, elementary school enrollments have grown rapidly, as shown by the following approximate figures:[30]

1958–59	165,000
1964–65	347,000
1967–68	407,609

Increases have been less dramatic since 1963 when the Government decided to institute a pause in elementary-level expansion, both because of insufficient money to continue the previous accelerated growth and also because elementary school leavers were unable either to enter secondary education or to find jobs. The Government planned for a total of only 375,000 pupils in 1970–71—a decrease from the 1967–68 enrollment.

In 1964–65 the average teacher-pupil ration was 1:45, with the lower grades excessively large and the higher ones much smaller.[31]

Chart 12 shows the distribution of elementary and secondary school pupils, by grade, in 1964–65.

The percentage of elementary-age children who are in school differs according to region. An estimated 15 percent were in school in the north and 58 percent in the south, in 1964–65. By educational district in 1964–65, Abidjan in the southeast had over 67 percent in school, Daloa in the

[30] Except as indicated, in this section figures for 1958–59 and 1964–65 are from: République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques au 1er janvier 1965*. Abidjan, n.d. Figures for 1967–68 are from: France, Secretariat d'Etat aux Affaires Etrangères et Institut d'Etude du Développement Economique et Social. *Couts et rendements de l'enseignement du second degré dans quatre pays africains d'expression française*. Vol. I. Paris: Presses Universitaires de France, 1970.

[31] Of the 347,000 elementary school children in 1964–65, about 12,000 were foreigners, mainly French.

west had about 39 percent, and Bouake in the northcentral section had about 28 percent. The percentage for the country of all elementary-age children in school was 44 [32] (compared with an estimated 24 in 1958–59). Lack of accurate population data makes all such figures only approximate, however.

About 32 percent of the elementary school students were girls.

Secondary.—The growth of general secondary education has been more rapid proportionately than that of elementary education. Enrollments increased from 10,800 in 1960–61 to 37,460 in 1967–68. Of this latter total, 28,750 were in public schools. Only about 8 percent of the total enrollment were in the upper secondary cycle.

Present plans call for secondary-level enrollments to be stabilized by limiting new admissions for the next few years. However, in view of the public demand for more access to secondary education, it is questionable whether the Government will be able to maintain this policy. If it does, enrollments in private secondary schools are likely to increase sharply.

Educational opportunity at the secondary level is affected by regional and sex factors. Children from the south and the cities have greater opportunity than those in the north and in rural areas.[33] In 1964–65, there were 6 times as many boys enrolled as girls.

Higher.—Enrollments at the University of Abidjan have grown from an initial 300 in 1959–60 to 2,566 in 1967–68. In addition, there has been a substantial increase in students attending specialized institutes and schools associated with the University. However, the output of the University is still low, totaling 30 in 1967 of whom only nine were Ivorians. The relatively small number of students eligible for university studies and a high failure rate among university students accounts for the few graduates.

Efficiency

Elementary.—A marked feature of elementary education in Ivory Coast is its low efficiency. For the period 1959–60 to 1964–65, dropout rates for the entire level have been estimated at about 45 percent. Table 4 shows average promotion, repeater, and dropout percentages during this period for each grade of both elementary and general secondary education. Repeater rates averaged about 30 percent per grade and reached almost 42 percent in the 6th grade where pupils pile up in the attempt to gain admission to secondary education. There are also high repeater rates in the earliest grades.

Table 5 illustrates the flow of 10,000 pupils through the 6 grades for the same years. About 20 percent—2,065—reached the 6th grade, most after 7 or 8 years in school. Of the 2,065, only 1,565 (15.6 percent of the

[32] A figure of 35 percent is given for the same year by the French Secretariat of State for Cooperation in a mimeographed document, *Situation de l'enseignement dans les états africains et malgaches, année scolaire 1964–65*, October 1965.

[33] An excellent study of educational opportunity and of students' attitudes and aspirations is provided in: Remi Clignet and Philip Foster, *The Fortunate Few: A Study of Secondary Schools and Students in the Ivory Coast*. Evanston, Ill.: Northwestern University Press, 1966. 239 pp.

Table 4. Average percentage of students[1] in each elementary and secondary grade in Ivory Coast who were promoted, became repeaters, or dropped out: 1959–60—1964–65

Grade[2]	Were promoted	Became repeaters	Dropped out
	Elementary		
1	48.7	35.6	15.7
2	57.6	33.5	8.9
3	64.5	28.2	7.3
4	67.4	26.0	6.6
5	59.0	29.3	11.7
6	17.7	41.7	40.6
	Secondary		
7	68.6	17.8	13.6
8	71.0	12.5	16.5
9	64.3	15.6	20.1
10	30.4	23.7	45.9
11	70.9	11.7	17.4
12	50.0	33.0	17.0
13	70.0	21.0	9.0

[1] Percentages are based on enrollments at the beginning of the school year. Dropouts include both those who drop out during the year and those who do not enroll the next year.

[2] For clarity, the American system of grade numbering is used here. In Ivory Coast, the grades in ascending order are termed, for the *elementary* level—preparatory course 1 and 2, elementary course 1 and 2, and middle course 1 and 2; for the *secondary* level—6, 5, 4, 3, 2, 1, and terminal.

Source: République de Côte d'Ivoire. Ministère de l'Education Nationale. *Statistiques au 1er janvier 1965*, p. 185.

10,000) finally passed the elementary school-leaving examination (CEP).

Secondary.—Efficiency has also been low at the secondary level. The dropout rate has been about 40 percent in the first cycle (grades 7 to 10) and 50 percent in the second cycle (grades 11 to 13). Of 4,513 students entering the 7th grade in October 1960, only 284—about 6 percent—passed the final *baccalauréat* examination at the end of the 13th grade. Of these 4,513 students, approximately 62 percent reached the 10th grade, 16 percent the 12th grade, and 8 percent the 13th grade.

SUMMARY

In Ivory Coast, educational development, in structure, curriculums, and examinations, has followed the French tradition. This is not surprising since the ties between the two countries are close and France provides about 20 percent of total educational expenditures and about 90 percent of the postelementary teachers.

The educational system is plagued by three basic problems—internal inefficiency, poor output, and high unit costs. Reasons for inefficiency include the following:

Table 5. Flow of 10,000 students from grade 1 in 1959–60 to grade 6 in 1964–65 in Ivory Coast, by number of years students spent in school

Grade	Student total	Years in school								
		1	2	3	4	5	6	7	8	9
1	10,000	7,000	3,000							
2	6,500	.....	3,500	2,550	450	.....	.....	.....	.....	.....
3	5,070	.....	.....	2,100	2,160	810	.....	.....	.....	.....
4	3,900	.....	.....	.....	1,120	1,700	1,080	.....	.....	.....
5	2,975	.....	.....	.....	.....	540	1,180	1,255	.....	.....
6	2,065	.....	.....	.....	.....	.....	260	705	765	335

Source: République de Côte d'Ivoire, Ministère de l'Information. *AIF Special, Ire Congress PDCI-RDA*. September 1965. p. 149.

1. Underqualification of elementary teachers
   (In 1967, less than 50 percent had completed the 10th grade and had some professional training.)[34]
2. The large number of expatriate secondary school teachers
   (Some are poorly adjusted to the instructional situation and all contribute to high unit costs.)
3. Curriculum and examination procedures unsuitable to local needs
4. Excessive number of pupils in elementary classes
   (In 1967–68 the ratio of pupils to teachers was 47:1.[35])
5. Heavy academic workloads for secondary students
6. Inadequate teacher inservice training and consultant services.

Output has been low in relation to intake and insufficient to meet manpower needs. From 1960 to 1965, the demand for highly skilled workers with a secondary or higher education required the importation of a large number of foreign personnel. From 1966 to 1970, the deficit was expected to be even larger. Training has been criticized frequently as inappropriate in terms of industrial and agricultural needs. Technical school graduates have been criticized for lack of practical training, distaste for manual work, and expectation of positions and salaries above their qualifications.

High unit costs tend to restrict the expansion of educational opportunity. In 1967–68, elementary enrollment was limited to 35 to 45 percent of elementary-age children, and secondary school enrollment was about 10 percent of elementary enrollment.[36] The high secondary-level costs are due to such factors as free boarding, scholarships, small uneconomical school units, light teaching loads, and low pupil-teacher ratios.

Since 1963, elementary school expansion has been restricted in order to improve its quality and to put more funds into secondary education. This policy is to continue for the next few years while efforts are made to improve the efficiency of elementary education so that more students can enter the secondary level. By 1970, it was hoped that 10,000 students would be taken into the 1st year of secondary education and that enough students would pass through the first cycle to meet the needs of the technical and teacher-training tracks and of general upper secondary education (in order to feed the University).

Although these plans will raise educational expenditures and require more expatriate teachers for the next decade, the increasing demand for qualified manpower necessitates the expansion of secondary education. The cost of foreign personnel is high and their presence over a long period uncertain. The lower cost of Ivorian manpower when it is finally acquired, however, will reduce industrial and agricultural production costs. Furthermore, the economy can bear the increased educational expendi-

[34] République de Côte d'Ivoire, Ministère des Affaires Economiques et Financières. op. cit. p. 14.
[35] Ibid. p. 21.
[36] France, Secrétariat d'Etat aux Affaires Etrangères et Institut d'Etude du Développement Economique et Social. op. cit. I:60.

tures even if there is some reduction in foreign aid.

Not only must secondary education be expanded, but the system's efficiency must be improved at both the elementary and secondary levels in the years immediately ahead. The country can ill afford the human and financial wastage resulting from the present operation.

The maximum level for educational expenditures is certain to be reached long before universal elementary education can be attained and secondary education adequately generalized. This implies a need to sacrifice luxuries such as extensive free boarding and scholarships, small schools and class, and low teaching loads, to develop more regional and local responsibility for elementary education, and to encourage out-of-school vocational training. Indeed it would seem that a thorough study of means to reduce costs should be conducted and an evaluation of their effects on the system made, and then means that would not lower educational quality introduced as soon as possible.

VI. Comparison of Educational Development: 1960-70[1]

INTRODUCTION

A brief comparative review of socioeconomic aspects of the four French West African nations under consideration will set the stage for the central endeavors of this chapter—comparing the major characteristics of the educational systems during the first decade of Independence (insofar as the fragmentary information permits) and deriving generalizations concerning common trends and problems.

Geography

Landlocked Mali is larger than the other three nations combined, and Ivory Coast is substantially larger than Guinea and roughly twice the size of Senegal (see map preceding chapter I). The last three nations have the advantage over Mali of bordering on the Atlantic Ocean. Further, about one-third of Mali lies within the Sahara and much of the remaining two-thirds lacks water. Shortage of water seriously affects Senegal also, and has constrained the development of northeastern Guinea and, to a lesser extent, that of northern Ivory Coast.

Population

In the late 1960's, population estimates were as follows:

4.9 million	Mali
4.7 million	Ivory Coast
3.8 million	Senegal
3.7 million	Guinea

The annual population growth rate for all four countries is usually estimated as between 2 and 3 percent. Three-fourths or more of the populations are rural, although the accelerated movement to urban areas presents a continuing problem in all four countries. Islam is the dominant religion in Guinea, Mali, Senegal, and in northern Ivory Coast; Christian influence is greatest in southern Ivory Coast.

Economy

All four countries are basically agricultural and have important sub-

[1] Except as indicated, the sources for all data in this chapter have been given in previous chapters.

sistence and export sectors. Major export crops are limited to one or two in each country although extensive diversification efforts have been underway in recent years. Industrialization has progressed vigorously only in Ivory Coast, which has maintained one of the fastest economic growth rates in Africa. Senegal, the administrative and commercial center of former French West Africa, has fared less well. The relative magnitude of the four nations' economies is indicated by the following per capita income estimates:

$245	Ivory Coast
182	Senegal
70	Mali
70 (or less)	Guinea

Each county has received substantial external monetary and technical assistance, and its development in the foreseeable future will depend largely upon the continuance of such aid and its effective utilization (assuming a relatively prosperous world economy and a control over the population growth rate). Increased regional cooperation constitutes another major need if scarce resources are to be increased substantially and applied effectively.

At the conclusion of the first decade of development, only Ivory Coast can be said to have made outstanding progress in expanding and diversifying the national economy. Economic growth in Senegal has been slow, and thus development plans, including those for education, have had to be cut back from early, ambitious targets. Nevertheless, both Ivory Coast and Senegal are much more developed than their neighbors, Guinea and Mali. Although rich in natural resources, Guinea has suffered from the withdrawal of French aid and the nationalization of much of the economy without the trained manpower to operate it effectively. Mali has suffered from this latter problem as well, but it lacks the natural resources and the outlet to the sea which will be of advantage to Guinea in the future.

Political Orientation

All four states have operated essentially under single-party systems, although the ideological orientations have differed substantially. The spectrum from the radical left to the moderate positions is represented respectively by Guinea, Mali, Senegal, and Ivory Coast.[2] These orientations have resulted in a wide range of policies, from nationalization of internal commerce and education in Guinea to free enterprise and state capitalism in Ivory Coast. Until the recent coup d'etat, Mali's internal and external policies approximated those of Guinea, while the policies of Senegal have remained, in general, closer to those of Ivory Coast.

[2] Senegal has had token opposition parties in the past; the new Malian Government is reported to be more pragmatically than ideologically oriented.

EDUCATIONAL SYSTEMS

Objectives

A statement by the Minister of Education in Guinea gives a key to the differences in educational objectives among the four countries: "Let us say it clearly, instruction and education are political entities. Instruction in a country is what the political-social regime of the country is." [3]

Thus, statements of educational objectives in Guinea frequently have a political orientation in the Marxist tradition; they contain vigorous references to developing militant participants in the national revolution and conscientious workers for national development. In the past, educational documents of Mali have contained similar expressions, although the tone generally has been milder and less space has been devoted to educational philosophy than in Guinea.

The documents of both Guinea and Mali contain statements naming "decolonialization" of the mind as an educational aim. For example, an article in an official Guinean education journal categorizes educational systems as feudal, bourgeois, communistic, and colonial. The fourth system is treated at length and is characterized as antihuman and antidemocratic. The reform of education in Guinea is seen as aimed at destroying the characteristics of colonial education and establishing a democratic people's system based upon Party directives.[4]

In Senegal and Ivory Coast, statements of general educational objectives are more technically oriented and avoid condemning the past, at least in militant terms. For example, in an editorial a former Ivory Coast Minister of National Education stated that the colonial school was entirely at the service of colonialization to train lower level agents, but his point is that the colonial schools were relatively efficient for their day as compared with present-day schools and their broader objectives.[5]

The difference in emphasis can perhaps be seen best in the references to education or instruction in Guinea and Mali as a factor of *revolution*, and in Senegal and Ivory Coast as a factor of *evolution*. The most striking example of the consequences of this difference is probably the nationalizing of education in Guinea, where private education was viewed as incompatible with the aims of the revolution. Also, all Guinean schools have recently been termed *centres d'enseignement révolutionnaires*.

Statements concerning the general or specific objectives of education reflect common concerns as well as differences among the nations. They all show concern for (1) establishing an elementary or basic education

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[3] Conte Aidou. "Enseignement, education et culture," *Revue de l'éducation nationale, de la jeunesse et la culture*, No. 3. Conakry: République de Guinée, Ministère de l'Education Nationale, January 1964. p. 3. (Translation by the author)

[4] République de Guinée, Ministère de l'Educational Nationale. "Historique, justification, application de la réforme de l'enseignement en Guinée," *Revue de l'éducation nationale, de la jeunesse et de la culture*, No. 2. Conakry: Le Ministère, October 1963. pp. 6 and 7.

[5] M. L. Amon Tanoh. Editorial in *Bulletin Pédagogique du Ministère de l'Education Nationale*. République de Côte d'Ivoire. October, November, December 1964.

which will provide a fundamental grasp of French,[6] (2) developing attitudes favorable to nationalism in the social and economic sectors, and (3) "ruralizing" the system to stem emigration from rural to urban areas. (The possibly inherent incompatability of these objectives will be discussed later in this chapter.)

Still other objectives are shared. Those at the lower secondary level are conceived generally in terms of further education for the best achievers and a terminal practical program for the majority of elementary school leavers. At the upper secondary level, objectives appear to remain more traditional except in the obvious case of Guinea, where emphasis upon work and production pervades all secondary institutions.

In this connection, each of the four countries appears to be stressing a close liaison between the school and the realities of life. The ideas for "adapting" the educational systems have evolved from simply modifying course content (in such areas as history, geography, and science) to renovating all aspects of education, particularly at the elementary and postelementary or lower secondary levels. In Ivory Coast, this evolution has recently included more sophisticated attempts to formulate general objectives and to translate these into specific behavioral outcomes which approach the concept of student terminal performance specifications.[7]

Structures

In Guinea and Mali, the structure each inherited at Independence was altered in the early 1960's, whereas in Senegal and Ivory Coast it is likely to undergo similar modifications in the early 1970's. Both of the former countries have reduced the first cycle (elementary level) from 6 to 5 years and followed this with a 4-year second cycle (lower secondary) and a 3-year third cycle (upper secondary). In 1968–69, both nations transferred grade 6 to the first cycle, resulting in a 6–3–3 structure.

In Guinea, attempts to develop a practical second cycle for the majority of pupils completing the first cycle have gone through various experimental stages and culminated in 1966 with the establishment of *collèges d'enseignement rural* where, eventually, the majority of first-cycle graduates will receive further general education and practical training linked with a production scheme that will help pay the program costs. Parallel to the rural track is the technical track, which includes more general education and leads to the third cycle for selected students. The third cycle, like the second, consists of two tracks, one terminal and the other permitting access to higher education for selected students. The structure is relatively simple—a single elementary cycle followed by dual-tracked second and third cycles, each of which includes a terminal track for the majority of students.

[6] Guinea has recently replaced French as the language of instruction with three major local languages for the first 4 grades.

[7] République de Côte d'Ivoire, Ministère de l'Education Nationale. *Programme d'éducation télévisuelle, 1968–1980.* Paris 1:80–82.

The structure in Mali is more complicated. Although the 3-year second cycle (conceived as the upper cycle of fundamental education) is to become universal and compulsory in the future, during the first decade of Independence only a small portion of 5th-grade graduates had access to it. It is paralleled for the time being by 2- and 3-year terminal vocational tracks. The third (secondary) cycle consists primarily of a general 3-year track, with parallel specialized tracks of 2, 3, and 4 years.

Both Senegal and Ivory Coast have moved more cautiously in terms of structural changes. However, both nations are likely soon to institute modifications.

In Senegal, major structural changes called for in the current plan are a reduction of the elementary level from 6 to 5 years and the initiation of a 4-year postelementary terminal track for the vast majority of elementary school graduates and a parallel common lower secondary academic program for about 15 to 20 percent of the graduates. Automatic promotion in the elementary cycle and repetition of only 1 grade in the lower secondary academic program represent important features of the above reform. It will also include the limitation of academic and technical *lycée* programs to grades 10–12.

In Ivory Coast, the 6-year elementary cycle may be divided into a 4-year fundamental cycle followed by a 2-year complementary cycle for pupils completing the first 4 years without repeating. For the majority of 6th-grade graduates, a 3-year postelementary course would be provided, and the minority would continue in the traditional lower secondary general or vocational track. A major effort to employ educational television is also underway in conjunction with the elementary school and elementary school teacher-training program.

At the higher education level, the Senegalese Institute of Technology (attached to the University of Dakar) has a flexible 2- or 3-year structure according to the nature of the courses offered. The program of studies varies from year to year in an attempt to supply the limited numbers of high-level technicians required for different fields.

From the effected and proposed changes mentioned, it is obvious that all four countries are attempting to develop an elementary system that can become universal in the foreseeable future and that will both provide minimal basic education and prepare pupils for secondary education. As a necessary consequence of this objective, practical and terminal forms of postelementary or lower secondary education are being planned for the majority of elementary school graduates in Guinea, Senegal, and Ivory Coast. The major problem is to develop an effective program while avoiding the high costs of personnel, facilities, and equipment of the traditional vocational training systems. These latter systems at the lower secondary level are tending to disappear due to cost factors and the immaturity of their students. For example, vocational training in the traditional sense will start in what will be the third cycle or 10th year in Senegal.

Curriculums

Adapting curriculums that will accommodate the socioeconomic needs of the country has been a growing concern within each of the four nations. In general, the initial emphasis after Independence upon modifying secondary level history and geography courses has been followed by curriculum-development activities for all levels and types of education. These activities have aimed at developing the attitudes, knowledges, and skills required to integrate the learner into the local society as a productive citizen who can contribute both economically and socially to national development. In brief, there is an increasing realization that the European models per se are not suitable instruments to meet the education and training needs of West Africa.

This realization has led to numerous experimental programs both in the countries under discussion and in neighboring countries. In general, these programs represent attempts to provide practical training at costs below those of the formal, traditional systems, and they are associated frequently with the relatively new movement to "ruralize" education. This latter effort, directed partially against the migration from rural to urban areas, provides postelementary practical training based upon regional needs. It is viewed also as a potential terminal training for the mass of elementary school graduates unable to enter the traditional lower secondary schools.

Of the four countries under review, Guinea has developed more of these postelementary practical schools. In 1967–68, some 12,500 students were reported to be enrolled in them.[8] Indeed, Guinea has moved more rapidly than the other three countries in attempts to adapt education to the local political orientation and to economic needs.

According to informal reports by recent visitors to Guinea, new reforms are being enacted constantly. This leads to the criticism of moving too far too fast in terms of required curriculum-development activities, retraining teachers, preparing instructional materials, and acquiring adequate facilities and equipment. On the other hand, the trend of the reforms appears to be relatively consistent; and until they result in a comprehensive, clearly defined rationale for educational development for the next 10 to 20 years, the gap between the ends and the means of the system may be advantageous. In terms of curriculum, the system in Guinea appears to imply a close liaison between life and the school. The elementary pupils are exposed to the community's range of economic activities; and lower secondary students take a course combining general education and agricultural or industrial studies. The principle of equal opportunity lies in the rationale that superior achievement in the common general studies may give access to further education. Obviously, this is true only if rural schools provide adequate instruction.

Upper secondary and postsecondary education and training in Guinea

[8] *Horoya*. loc. cit. June 20, 1968. pp. 1 and 2.

follow the more traditional concepts of French education, although there exists a greater emphasis upon technical studies than in the other systems. The same principle applies to higher education.

Two major innovations (mentioned briefly earlier in this chapter) have been introduced in Guinea and in Ivory Coast. Guinea has replaced French with the three major local languages (Malinke, Peul, Soussou) as languages of instruction during the first 4 years in the elementary schools, and Ivory Coast has introduced educational television on an extensive scale commencing during the 1970–71 school year. Both of these projects could have major significance to the further development of education of Francophone West Africa.

Teachers

The teaching staffs of the four countries have common characteristics. Elementary school teachers, to an almost 100 percent extent, are nationals with the majority unqualified; teachers at the secondary and postsecondary levels are generally expatriates. Although the output of teacher-training programs at all levels is inadequate to meet the demand which results from expansion, turnover, and the phased replacement of unqualified teachers, the situation is worse at the secondary level than at the elementary because of the late start in establishing programs, the relatively low enrollments and output, and the high per student costs.

The upgrading of elementary school teachers or their replacement by qualified teachers presents a dilemma of salary increases which can hardly be supported financially on a large scale. On the other hand, it is assumed that the qualified teacher will be less dependent upon the rote memory and "no-questions-asked" approach to instruction generally attributed to the underqualified instructor.

School Facilities and Equipment

In general, school facilities and instructional equipment are similar in the four countries. With few exceptions, the interior of a secondary school classroom is stark. A relatively small and well-worn chalkboard constitutes the means of visual presentation. Libraries are not common and, if they exist, are limited to small areas which preclude liberal student access. With the occasional exception of "show place" institutions, science and practical arts equipment is frequently inadequate from both the qualitative and quantatative aspects and expendable materials may be in short supply due to cost and control factors. Yet some establishments, usually associated with bilateral aid, tend to be overequipped in sophisticated means of instruction. This appears to apply particularly to Guinea and Mali due to competition between the East- and West-bloc nations.

Elementary schools have less equipment than secondary institutions, and because of the lack of qualified instructors and of French emphasis upon audiovisual aids, classroom instruction is limited largely to a rote memory and drill process oriented primarily to learning French. Obviously, schools

in the major population centers are better staffed and equipped and students have access to textbooks. In rural areas, textbooks are frequently in short supply, but the ability of the teacher to overcome this handicap is absent.

The maintenance of buildings, furnishings, and equipment constitutes a frequent problem due to inadequate allocation of funds for this purpose and, in the case of sophisticated equipment, lack of spare parts and, occasionally, of technical "know-how." These problems have led to comments such as: "Africa is a huge graveyard of language laboratories."

STUDY ABROAD

The trend is to reduce progressively the number of students studying abroad by developing local institutions. Among those studying abroad, there has been a shift in the distribution by fields of study from the more general and common professional fields to the more specialized ones where the relatively few students make the cost of establishing local institutions prohibitive. Obviously, there has been a reduction of the numbers of secondary students abroad and a shift to complementary short-term training from regular school courses. Judging by the statistics showing the number of students studying in France (excluding those from Guinea), 1963–64 was the peak year both for enrollees in regular courses and for those in short-term training.[9]

The French Government has set the example for the African nations by awarding to Africans scholarships in specialized studies that cannot be pursued in the African countries. These include studies in the French *grandes écoles* and at the postgraduate level in the French universities. Further, the French program is stricter in requiring students to remain in the original field of studies and in withdrawing scholarships when achievement is not satisfactory. Apparently, students pursuing scientific and highly technical studies often find themselves unable to cope with the demands of the studies and shift to the social sciences, humanities, and law. However, as the French Government program includes less than 30 percent of the African students studying in France, the effectiveness of overseas studies, at least as practiced in France, is questionable in relation to costs and outcomes.

EDUCATIONAL EXPENDITURES

Financing

In the midsixties, all four countries were spending a significant portion of their gross domestic product on educational development. Available estimates range from 3.3 percent for Mali in 1963 to a high of 6.4 per-

[9] France, Direction de la Coopération. *Rapport d'activité, 1964–66*. Paris: Secrétariat d'Etat, January 1967, p. 80.

cent for Senegal in 1964. Estimates for Guinea and Ivory Coast were over 4 percent in 1964. These figures include external assistance which was certainly substantial in all of the countries although total figures and ratios are generally unavailable and are subject to fluctuation in view of bilateral capital aid projects.

For Mali, Senegal, and Ivory Coast, 1965 figures are available that give the percent of total national expenditures (including foreign aid funds) spent on education, the total educational expenditures in millions of CFA francs, and the percent of that total received from France. They are as follows:[10]

	Percent of national expenditures	Total educational expenditures	Percent from France
Mali	17.1	1,778	10.6
Senegal	15.2	5,244	8.5
Ivory Coast	22.5	7,270	4.6

With the exception of Guinea, the major external sources of aid to education include France for bilateral assistance and the European Common Market for multilateral assistance. The major sources for Guinea are the socialist countries. Virtually all the assistance is concentrated on the secondary and higher education levels, although Guinea and Mali participate in the international adult functional literacy pilot programs.

Internal sources of revenue for education are largely national; local participation consists of labor and materials to construct elementary schools and partial support for school maintenance and supplies. The possibilities of local taxation for education have not been thoroughly exploited, but they are very limited due to the importance of the subsistence economy in rural areas.

Expenditures

By educational level or type.—The percentage division of available figures on 1965 educational expenditures by level or type of education was as follows: [11]

	Total	Elementary	General secondary	Technical
Mali	86.1	40.3	37.6	8.2
Senegal	98.8	51.6	33.1	6.1
Ivory Coast	90.8	58.5	25.1	7.2

The development of higher education, in terms of both capital and

[10] Ibid. p. 87. In 1964–65 Guinea spent about 20 percent of national expenditures on education.
[11] Ibid.

recurrent costs, has been financed mainly by external sources in the sixties. The progressive assumption of the recurrent expenses of this level by the National Governments will entail considerable hardship (with the possible exception of Ivory Coast).

Private education at the secondary level is important in Ivory Coast and Senegal, and to a lesser extent in Mali. However, most of these institutions depend heavily upon government subsidies and, therefore, do not represent a major means of conserving public funds.

By purpose.—Expenditures by purpose of outlay represent generally a decrease in terms of administration, maintenance, and supplies, in relation to salaries.[12] Given the intentions to expand all three levels of education and to replace the lowest categories of unqualified personnel as well as to upgrade others, this trend is likely to continue. Although administrative costs should decline proportionately as enrollments increase, the systems lack both adequate planning and management, and curriculum research and development structures: these activities require substantially increased financial support.

So long as traditional teacher-student ratios prevail, teachers' salaries will constitute a formidable obstacle to educational expansion. New technologies, such as programed instruction and educational television, have been suggested to reduce the number of teachers required for a given number of pupils, but more experimental programs are needed to establish the validity of such proposals. The high initial costs of these unproven programs, however, tend to discourage the investment of scarce capital. Nevertheless, Ivory Coast is commencing an instructional television program initially directed at the elementary level.

Unit Costs

At present, unit cost comparisons between nations may be misleading due to the number of unknown factors and the lack of standardization. However, the common phenomenon of the high cost of secondary technical education in relation to that of elementary and general secondary education is worth noting in view of the present tendency to place more emphasis upon expanding secondary technical. In the midsixties, this type of education consumed from 6 to 8 percent of the educational expenditures in Mali, Ivory Coast, and Senegal. Substantial increases in the secondary technical student populations imply greatly increased proportions of the total educational budgets allocated for this purpose. However, the past history of graduates questionably prepared in terms of local practical needs, and the limited absorptive capacity of the public and private sectors, suggest the need for thorough pre-investment studies in this area of education.

The substantial commitments made to educational development are

[12] Expenditures on administration in Senegal increased very slightly during the first half of the sixties while those for maintenance and materials declined. Some of the administrative increase was due probably to the establishment of a separate ministry for vocational-technical education.

likely to lead to difficulties as costs increase because, with the exception of Ivory Coast, economic growth rates have not been as great as anticipated while population growth rates are high. This situation is aggravated further by existing debts and a decline in external assistance. Indeed, the prospects of expanding substantially the educational systems in Guinea, Mali, and Senegal during the seventies would appear to be dim unless resources are diverted from other sectors which, in turn, might slow further already mediocre economic growth rates.

ENROLLMENTS AND EFFICIENCY

Enrollments

Elementary and secondary.—From table 6 it can be figured that, with the exception of Mali, elementary-level enrollments grew more rapidly from 1952–53 to 1960–61 than from 1960–61 to 1967–68. The table reflects the trend not only to slow elementary school enrollment growth in the midsixties (due to lack of financial and human resources), but also to developing secondary education. The rate of enrollment increase in different types or levels of schools from 1952–53 to 1960–61 varied among the countries as follows: [13]

	Approximate percent increase
Elementary	500 to 1,200
General secondary	2,000 to 9,000
Vocational	100 to 1,700

Estimates of the percentage of elementary- and secondary-level age groups in school for 1952 and 1966 are as follows: [14]

	1952	*1966*
Guinea	4.2	30.0
Mali	4.1	15.0
Senegal	9.8	30.0
Ivory Coast	8.0	40.0

In view of the significant proportion of national revenue devoted to education and the high population growth rates, these figures reveal the discrepancy between educational aspirations and financial resources.

The 1967–68 figures in table 6 reveal a continued enrollment imbalance between elementary and secondary education. In that year, general sec-

[13] In some cases, the figures and percents in table 6 do not represent an accurate picture due to the existence of regional schools (those with students from more than one country) in the 1950's, such as the vocational school in Bamako, Mali. For example, table 6 shows that the number of Malians pursuing vocational education increased only about 100 percent, but it, in fact, increased more than 100 percent.

[14] France, Ministère de la France d'Outre-Mer. *Enseignement outre-mer.* Paris: Imprimerie Nationale, April 1952. pp. 41–47, *and* France, Direction de la Coopération. op. cit. p. 90. The 1966 figure for Guinea is the author's estimate.

Table 6. Total approximate number of students in elementary, secondary,[1] and vocational schools, and percentage of these in private schools in Guinea, Mali, Senegal, and Ivory Coast: 1952–53, 1960–61, and 1967–68 [2]

Country	1952–53						1960–61						1967–68					
	Elementary		Secondary		Vocational		Elementary		Secondary		Vocational		Elementary		Secondary		Vocational	
	Number	Percent private	Number	Percent private	Number	Percent private	Number	Percent private	Number	Percent private	Number	Percent private	Number	Percent private	Number	Percent private	Number	Percent private
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Guinea	18,000	13	400	....	380	....	97,000	....	7,400	....	2,000	....	150,000	....	[3] 36,000	....	(4)	....
Mali	25,000	7	900	2	540	....	66,000	12	2,200	12	600	....	151,000	7	29,000	10	1,000	34
Senegal	38,000	11	2,300	....	520	....	206,000	13	21,400	20	6,900	23	249,000	13	47,000	19	8,000	24
Ivory Coast	32,000	33	1,300	15	330	....	239,000	28	10,000	15	1,900	16	408,000	26	39,000	26	2,700	....

[1] Includes general secondary and elementary teacher training.
[2] Since many statistical discrepancies occur between various sources, the data are indicative of scale only. Figures are approximate.
[3] Includes vocational.
[4] Included in general secondary.

Source: For 1952–53: France. Ministère de la France d'Outre-Mer. *Enseignement outre-mer*. pp. 41–43 and 47. For 1960–61: UNESCO. *World Survey of Education*. 1966. IV:563, 680, 767, and 986. For 1967–68: France. Ministère de la Coopération. Unpublished statistical summaries except for Guinea. *Horoya*. Conakry, June 20, 1968. pp. 1 and 2.

ondary and vocational school enrollments together represented only the following percentages of those in elementary schools:

	Percent
Guinea	24
Mali	20
Senegal	22
Ivory Coast	10

The percentage for Ivory Coast was low because of the rapid expansion of elementary enrollments in comparison to secondary, particularly vocational secondary, enrollments.

Senegal—and probably Guinea—had a higher ratio of vocational to general secondary enrollment than the other countries. The expansion of vocational education has been hampered, however, by the high capital and recurrent costs involved, the lack of industry's participation to make the programs practical, and the limited demand for specialized labor in many occupational fields.

In the private sector of education, Guinea and Ivory Coast represent the two extremes (see table 6). The former nationalized all education shortly after Independence, while the latter has maintained a large private sector that accounted for about 26 percent of both elementary and general secondary enrollments in 1967–68. On the other hand, private vocational school enrollments are substantial only in Mali and Senegal.

Another enrollment imbalance occurs in the distribution by sex. From 1964 to 1966, the percentages of girls enrolled in the four nations ranged from about 30 to 48 percent in the elementary schools and from 17 to 26 percent in the general secondary schools. The number of women studying at the higher education level is negligible. However, the percentage of girls in school varies significantly between urban and rural areas, with the number of girls almost as high as the number of boys in elementary schools in the capital cities.

Educational opportunities vary considerably by region within each of the countries. In general, about 60 to 90 percent of the urban elementary age group attend elementary school and about 10 to 40 percent of the rural elementary age group. The best secondary schools and the major institutions of higher learning are concentrated in the capital cities in every case. Further, as the major population centers, these cities represent the best out-of-school environments to prepare students for the European-oriented secondary and postsecondary programs of instruction.

Higher.—Enrollments at the higher education level have been restricted by the bottleneck at the secondary level. Nevertheless, the enrollment increase has been significant since Independence. The principle of regional universities has given way to that of national institutions in Guinea and Mali, although the Universities of Abidjan and of Dakar retain their regional character.

A precise comparison of enrollments for a given year is difficult for lack of standardized and comprehensive statistics that include institutions out-

side the university, students overseas, and distinctions between secondary and postsecondary enrollments and between nationalities. Nevertheless, the following approximate figures (not comparable throughout) provide a relative order of magnitude for the number of nationals studying at the postsecondary level: [15]

Guinea	*1964–65:*	350 at home
	1967–68:	900 at home
Mali	*1964–65:*	164 at home
	1965–66:	341 in France
	1966–67:	309 at home
Senegal	*1965–66:*	1,256 total (1019 at home, 237 abroad)
	1967–68:	1,549 total
Ivory Coast	*1965–66:*	1,604 total (724 at home, 340 abroad)
	1966–67:	1,362 total (1,064 at home, 298 abroad)

Postsecondary enrollments in Senegal and Ivory Coast have always been higher than those in Guinea and Mali because of the more advanced development of education in the former two countries at Independence. However, the preceding figures indicate that Guinea has had the fastest enrollment growth rate in recent years.

Given the fact that most of the students are pursuing 2- to 4-year undergraduate courses and that a varying but frequently high percentage of them fail their examinations, annual output remained quite low in the latter half of the decade. However, the trends of accelerating enrollments and of relatively slow economic growth rates suggest that an overproduction of the traditional types of university graduates may occur in the 1980's in some of the countries unless steps are taken to adapt higher education to local needs and to control the social demand for such courses as law.

Enrollments of national students in faculties at the University of Abidjan in 1968–69 are indicative of the popularity of law: law—639, science—609, letters—557, and medicine—178.[16] However, enrollments are better balanced between fields of study than during the first years of operation, and this same trend applies to the University of Dakar.

Efficiency

Studies of student flow through the various systems indicate that both the elementary and secondary levels are inefficient. For example, analysis of a cohort passing through elementary school in Ivory Coast indicated that about 45 percent of the original group dropped out prior

[15] France, Direction de la Coopération. op. cit. p. 98.
République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques au 1er janvier 1966* and *1967*. Abidjan. pp. 113–16.
Université de Dakar. *Informations statistiques de l'Université de Dakar*. No. 1. 1969. p. 27.
France, Direction de la Coopération. Unpublished statistical summaries.
Figures are approximate due to incompleteness of data and discrepancies between sources.
[16] République de Côte d'Ivoire, Ministère de l'Education Nationale. *Statistiques au 1er janvier 1969*. loc. cit. p. 163.

to completing the cycle, and repeater rates averaged about 30 percent per grade. A study in Mali showed that 17.5 percent of a cohort in 1st grade reached 6th grade without repeating, 4.6 percent completed the 9th grade in 9 years, and 20.5 percent finished after repeating 1 or more grades. The statistics for Senegal at the elementary level are similar to those for Ivory Coast.

While wastage at the secondary level is also relatively high, one may assume that the resource input is not completely lost, for the secondary school has a retention rate far beyond that of the elementary school dropout. At the higher education level, the percentages of students passing terminal examinations are relatively low. For example, at the University of Abidjan in June 1964, only the few candidates of the School of Medicine had a high passage rate—70 percent. In the other schools, passage rates ranged from 14.6 to 46.8 percent, and the rate for all candidates was 34 percent.

Both internal and external factors are frequently cited as causes of the high dropout and repeater rates. These factors include—

1. Irrelevance of the school system to environmental needs
2. Early work and marriage traditions
3. A foreign language as the language of instruction
4. Inadequate instruction
5. Overcrowded classrooms
6. Shortages of teaching materials
7. Absence of nearby schools with the complete grade sequence.

Remedial measures proposed or initiated include—

1. Adapting the curriculums to environmental needs
2. Upgrading teachers
3. Establishing a more complete school infrastructure
4. Automatic promotion in the early elementary grades
5. Multigrade classes
6. Developing educational guidance systems.

At present, laws exist which limit both the right to repeat grades (to two or three times in a given grade cycle) and also the entrance age into higher cycles.

CONCLUSIONS

Problems

In all four nations, educational development during the first decade of Independence has led to difficult problems. The rapid expansion of educational opportunity in terms of the existing formal systems can hardly be maintained in the seventies because of limited resources; yet less than 50 percent of each age group attends school and political commitments and popular pressure combine to make the slowing of further expansion hazardous.

Further, it has become evident that the inherited formal education sys-

tems are not adapted to the needs of rural development—which is essential to the four nation's economies. Elementary school now constitutes largely a preparation for lower secondary school, which in turn prepares for further education or for semiskilled jobs in the limited modern sector. The growing number of elementary school graduates, divorced in attitude from the land and tradition but unable to gain access to further education or to employment, is a matter of concern which has led to efforts to ruralize elementary and lower elementary schools.

The feasibility of "ruralization" may be questioned on several grounds. One is that elementary education is devoted chiefly to the language arts, which at present means the learning of French, and this very learning implies a foreign cultural indoctrination which automatically results in alienation from the rural environment. Another ground for questioning is that, regardless of the language of instruction, education constitutes an introduction to the modern world and its opportunities—most of which occur in urban, not rural, areas. Hence, "ruralization," if it is to succeed, must be conceived as a major national effort to modernize the rural sector. There is a need for well-designed research on these problems.

First Steps

Regardless of the questioning of "ruralization," activities to adapt the content and/or structure of education are current in all four countries. Guinea appears to be taking the lead in this regard, by replacing French as the language of instruction in the first 4 years of elementary school with the three major local languages, and by intending to include practical training in all secondary schools. Guinea, Senegal, and Ivory Coast have either initiated or been experimenting with an inexpensive terminal lower secondary track emphasizing the development of practical skills utilized in rural areas (such as agriculture, carpentry, and simple mechanics and metal work).

Guinea, lacking the aid of France and the European Common Market, has taken the lead in attempting to reduce educational costs through such means as providing elementary education without school buildings, eliminating boarding at many secondary schools, and requiring that secondary schools meet some of their own costs through student production. Academic achievement is reported to have declined as a result of these and other measures. However, if the programs improve initiative, entrepreneurship, and attitudes toward work, they will probably contribute more to national development than academic achievement as measured by school tests.

New Strategies

Imperfect as the various initiatives to modify and to adapt the inherited educational programs may be, they illustrate an increased maturity since the first, more imitative, years of the past decade. Institutionalized education is difficult to change under the best of conditions; and the

development of educational planning, management, and research and development capacities—which constitute the essential instruments of change—has been neglected largely in order to devote scarce resources to quantitative expansion. These instruments must be strengthened so that the educational system can be changed. Change is particularly necessary because (1) nations with average per capita incomes of around $100 cannot duplicate educational systems of countries with per capita incomes of $1,000 or more, and (2) the duplication of these systems does not meet the needs of developing countries. Indeed, the systems are being challenged strongly even in the countries of their origin.

Because science and technology are creating one world in terms of communication, a return to the past, which includes the traditional Western educational systems, would be impossible. In the light of existing circumstances, out-of-school education in both the developed and undeveloped countries needs reappraisal. New or renewed modes of such educational endeavors might be conceived and perfected as alternatives to the traditional classroom approach. New technologies such as programed learning may be useful. A clear distinction between the ends and means of education will be helpful also, for if instructional objectives can be stated in terms of interim and terminal performance specifications, alternative means of attaining them will be easier to conceive and to develop.

The seventies present a challenge to the developing countries, to the developed nations, and to international agencies. That challenge is to produce and implement new strategies for education.

Selected References

GENERAL

Amin, Samir. "Trois expériences africaines de développement: Le Mali, la Guinée et le Ghana," *Tiers-Monde*. Paris: Presses Universitaires de France, 1965. 167 pp.

Bolibaugh, Jerry and Paul R. Hanna. *French Educational Strategies for Sub-Saharan Africa: Their Intent, Derivation and Development*. Stanford: Comparative Education Center, Stanford University, 1964. 112 pp.

Deblé, Isabelle. "Les rendements scolaires en Afrique," *Tiers-Monde*. Paris: Presses Universitaires de France, 1964. pp. 53–103.

France. Bureau pour le Développement de la Production Agricole. *Etude comparative des essais de l'enseignement primaire aux besoins des pays d'Afrique à économie rurale dominante*, Vol. III. Paris: UNESCO, n.d. n.p.

———. Direction de la Coopération. *Rapport d'activité, 1964–66*. Paris: Secrétariat d'Etat, January 1967. 90 pp.

———. Ministère de la Coopération. *Situation de l'enseignement dans les états africains et malagaches, année scolaire, 1964/1965*. October 1965. (Mimeograph)

———. Ministère de la France d'Outre-Mer. *Enseignement outre-mer*. Paris: Imprimerie Nationale, April 1952. pp. 41–47.

———. Secrétariat d'Etat aux Affaires Etrangères chargé de la Coopération. *Données statistiques sur l'enseignement dan les états africaines et malagaches d'expression française, 1964–1965*. Paris: Imprimerie Nationale, October 1965. n.p.

———. ———. *Données statistiques sur l'enseignement dans les états africaines et malagaches d'expression française, 1965–1966*. Paris: Imprimerie Nationale, November 1967. n.p.

Hallak, J. and R. Poignant. *Les aspects financiers de l'enseignement dans les pays africains d'expression française*. Paris: UNESCO—IIEP, 1966. 76 pp.

Harbison, F. and C. Meyers (eds.). *Manpower and Education*. New York: McGraw-Hill, 1965. 343 pp.

Moumouni, Abdou. *L'Education en Afrique*. Paris: F. Maspero, 1964. 127 pp.

UNESCO. *World Survey of Education*, Vol. IV. Paris, 1966. 1,433 pp.

GUINEA

Aidou, Conte. "Enseignement, éducation et culture," *Revue de l'éducation nationale, de la jeunesse et la culture,* No. 3. Conakry: Ministère de l'Education Nationale, January 1964. 29 pp.

Behanzin, Louis. *Rapport général sur l'enseignement en République de Guinée.* n.d. (Mimeograph)

Conférence Internationale de l'Education (33d session). *Intervention du chef de la délegation de la République de Guinee.* Geneva, Sept. 16, 1971. 10 pp.

Fougues, A. *Guinée, enseignement technique et professionnel.* Paris: UNESCO, March 1967. 7 pp.

Horoya. Conakry, June 20, 1968 and Nov. 16, 1971. pp. 1 and 2 and p. 3, respectively.

République de Guinée. Ministère de l'Education Nationale. *Extraits du rapport de présentation academique des collèges d'enseignement rural.* Conakry, n.d. n.p. (Mimeograph)

———, ———. "Historique, justification, application de la réforme de l'enseignement en Guinée," *Revue de l'éducation nationale, d la jeunesse et de la culture,* No. 2. Conakry: Le Ministère, October 1963. 31 pp.

———, ———. *Rapport d'activité,* 3598/MEN. Conakry, n.d. n.p. (Mimeograph)

———. *Rapport d'activité,* 5485/MEN. Conakry, Oct. 31, 1962. n.p. (Mimeograph)

———, ———. *Rapport sur la réforme de l'enseignement primaire: Deuxième session 1961 de la conférence nationale du P.D.G.* Conakry, December 1961. n.p. (Mimeograph)

———, ———. *Revue de l'éducation nationale, de la jeunesse et de la culture,* No. 3. Conakry: Le Ministère, January 1964. p. 31.

———, ———. *Revue du travailleur de l'éducation nationale,* No. 4 Conakry: Le Ministère, September 1964. 23 pp.

———, ———. *Structure générale de l'enseignement guinéen.* Conakry, n.d. n.p. (Mimeograph)

———. Présidence de la République. *Orientation des élèves ayant terminé le cycle primaire,* 59/PRG. Conakry, n.d. n.p. (Mimeograph)

MALI

Centre International de l'Enfance. *Mali: Enseignement.* Paris, October 1969. 12 pp. (Mimeograph)

Druel, M. *Etude sommaire sur la réforme de l'enseignement au Mali et ses conséquences.* Accra: Centre Régional de l'UNESCO pour l'Information et la Recherche Pédagogiques en Afrique, 1966. 40 pp.

République du Mali. Ministère de l'Education Nationale. *La réforme de l'enseignement au Mali.* Bamako: Imprimerie du Gouvernement, 1965. 110 pp.

———. Ministère de l'Education Nationale, de la Jeunesse et des Sports. *Rapport sur le mouvement éducatif dans la République du Mali pendant l'année scolaire 1968/69*. Bamako, December 1969. 11 pp. (Mimeograph)

———. ———. *Projet d'un plan de développement de l'enseignement au Mali pour la période 1970–1972*. Bamako, November 1969. 31 pp. (Mimeograph)

———. Ministère du Plan. *Annuaire statistique 1967*. Bamako, June 1968. (Mimeograph)

———. Secrétariat de l'Etat pour la Jeunesse et Sports. *A la découverte du mouvement national des pionniers du Mali*. Bamako: Imprimerie du Gouvernement, n.d. 31 pp.

UNESCO. Groupe de Planification de l'Education. *Mali: Rapport de la première mission*. Paris: UNESCO, November 1964. 234 pp.

SENEGAL

Conseil Economique et Social. *Etude sur la situation de la jeunesse au Sénégal*. Dakar: Le Conseil, March 1966. 275 pp.

Fougeyrollas, P., F. Sow, and F. Valladon. *L'éducation des adultes au Sénégal*. Paris: UNESCO—IIEP, 1967. 46 pp.

Guillaumont, P., D. Garbe, and P. Verdun. *Les dépenses d'enseignement au Sénégal*. Paris: UNESCO—IIEP, 1967. 51 pp.

République du Sénégal. Ministère de l'Education Nationale *and* Ministère de l'Enseignement Technique et de la Formation Professionelle. *Statistiques scolaires: 1967–68*. n.d. n.p.

———. Ministère de l'Enseignement Technique et de la Formation des Cadres. *La femme, éducation, formation, promotion*. Dakar, n.d. 33 pp.

———. ———. *L'Enseignement et la formation professionelle agricoles au Sénégal*. Dakar, n.d. 38 pp.

———. Ministère du Plan et du Développement. *Deuxième plan quadriennal de développement économique et social: 1965–1969*, Vol. I and II. Dakar, 1965. pp. 64 and 210 pp. respectively.

———. ———. *Etude sur les orientations d'un plan éducationnel au long terme al Sénégal*. Dakar, 1965. n.p.

"Le Sénégal apres les elections présidentielles," *Europe-France-Outremer*. Avignon: Imp. Presses de Provence, March 1968. pp. 10–11.

IVORY COAST

Cerych, L. *L'aide extérieure de la planification de l'éducation en Côte d'Ivoire*. Paris: UNESCO—IIEP, 1967. 49 pp.

Clignet, Remi and Philip Foster. "La prééminence de l'enseignement classique en Côte d'Ivoire." *Revue française de sociologie*, Vol. VII, No. 1. January-March 1966. pp. 32–47.

———. *The Fortunate Few: A Study of Secondary Schools and Students in the Ivory Coast*. Evanston, Ill.: Northwestern University Press, 1966. 239 pp.

France. Bureau pour le Développement de la Production Agricole. *Etude sur l'enseignement et la formation professionnelle agricoles dans les pays francophones d'Afrique tropicale et à Madagascar: Côte d'Ivoire*. Paris: Ministère de la Coopération, 1965. 61 pp.

———. Secrétariat d'Etat aux Affaires Etrangères et Institut d'Etude du Développement Economique et Social. *Couts et rendements de l'enseignement du second degré dans quatre pays africaines d'expression française*. Vol. I: *Analyses nationales (Côte d'Ivoire)*. Paris: Presses Universitaires de France, 1970. 251 pp.

Hallack, J. and R. Poignant. *Les aspects financiers de l'éducation en Côte d'Ivoire*. Paris: UNESCO—IIEP, 1966. 44 pp.

Hauet, Daniel. *Côte d'Ivoire, enseignement technique et formation professionnelle*. Paris: UNESCO, January 1964. 21 pp.

Le Thanh Khoi. *Côte d'Ivoire, enseignement agricole*. Paris: UNESCO, July 1970. 41 pp.

République de Côte d'Ivoire. Ministère des Affaires Economiques at Financières. *Situation de l'enseignement en Côte d'Ivoire au 1er janvier 1968*. Abidjan. 68 pp.

———. Ministère des Affaires Economiques et Financières *and* Ministère de l'Education Nationale. *Rapport sur l'éducation dans l'enseignement, secondaire et technique de Côte d'Ivoire*. Puteaux, France, November 1968. 113 pp.

———. Ministère de l'Education Nationale. *Programme d'éducation télévisuelle, 1968–1980*, Vol. 1. Paris, n.d. 333 pp.

———. ———. *Statistiques au 1er janvier 1965*. Abidjan, n.d. 203 pp.

———. ———. *Statistiques: Situation de l'enseignement au 1er janvier 1966* and *1969*. Abidjan, n.d. 133 and 172 pp., respectively.

———. Ministère du Plan. *Eléments pour une loi-cadre de l'enseignement*. Abidjan, March 1968. 142 pp.

———. ———. *Première esquisse du plan quinquennial de développement 1971–1975*. Abidjan, May 1968. 290 pp.

———. ———. *Travaux préparatoires au plan 1971–1975, deuxième esquisse formation*. Abidjan, March 1970. 64 pp.

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